Catalog No. 4890407-02
Issued: July 1980

ATR-100 SERIES

RECORDER/REPRODUCER

VOLUME 2

OPERATION AND MAINTENANCE

AMPEX CORPORATION
AUDIO-VIDEO SYSTEMS DIVISION

Prepared by

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SECTION 6

PARTS LISTS AND SCHEMATICS

This section of the manual provides parts lists, assembly drawings and schematic diagrams for the ATR-100 Series Recorder/Reproducer, Ampex Part Nos. 4010350 through 4010353, 4010380, 4010381, 4010383, and 4010384.

Three indexes list the assemblies as follows:

- **Indentured List of Assemblies** – List of assemblies in sequence of appearance in the manual.
- **Numerical List of Assemblies** – List of assemblies in numerical sequence.
- **Numerical List of Schematics** – List of schematics in numerical sequence.

Note: This manual contains parts lists and schematics that also support the ATR-100 Recorder/Reproducers, Ampex Part Nos. 4010294, 4010295, 4010296, and 4010297.

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 00
1	4010254-05	I/O MAIN FRAME		1
2	4010255-01	KIT, MISC. PARTS 1/4"		1
3	4010258-AE	CABINET (1 & 2 CHAN)		1
4				
5	4020409-08	I/O MODULE		1
6	4020405-05	CONTROL UNIT, 4-CHANNEL		1
7				
8	4020434-06	TRANSPORT ASSEMBLY		1
9	4020480-01	HEAD ASSY, FULL TRACK (METAL FACE)		1
10				
11	4030431-AA	GUIDE ASSY, 1/4" TAKE UP		1
12	4030431-AB	GUIDE ASSY, 1/4" SUPPLY		1
13	4041256-03	COVER ASSY, HEAD		1
14	4041247-02	BLANK PANEL		1
15	4050754-16	PWA, AUDIO, MAIN BOARD		1
16	4050755-03	PWA, PADNET, 2-SPEED		1
17	4050778-09	PWA, REEL SERVO		1
18	4050787-06	PWA, TRANSPORT LOGIC & TAPE TIMER		1
19	4050788-06	PWA, AUDIO CONTROL		1
20	4050800-01	PWA, EXTENDER CARD		1
21	4050860-06	PWA, CAPSTAN SERVO		1
22				
23	4110147-20	SYSTEM, I.D. TAG		1
24	4170330-AA	LABEL, AUDIO BOARD, POSITION (1)		1
25	4170385-01	LABEL, TAPE TYPE 456		1
26				
27				
28	4320062-01	RETAINER, TRANSPORT PANEL		1
29	4170339-AA	WARNING CARD, LINE VOLTAGE, 115V	1	1
30	4170339-AB	WARNING CARD, LINE VOLTAGE, 230V	1	1
31	4110109-01	LABEL, NO. 1		1
32	470-010	SCREW, CAP, HEX SOCKET HD, 4-40 X 0.375 LG.		2
33	502-373	WASHER, SPRING LOCK NO. 4		2
34	501-169	WASHER, PLAIN, SM. PATTERN NO. 4		2
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36				
37				

NOTES:

1 OPTION: SELECT AS DIRECTED BY SALES ORDER.

4010351-00 ATR-100 TAPE RECORDER/REPRODUCER, TWO TRACK REV. C
NEXT HIGHER ASSEMBLY, CATALOG

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 00
1	4010254-05	I/O MAIN FRAME		1
2	4010255-01	KIT, MISC., PARTS 1/4"		1
3	4010258-AE	CABINET (1 & 2 CHAN)		1
4				
5	4020409-08	I/O MODULE		2
6	4020405-05	CONTROL UNIT, 4-CHANNEL		1
7				
8	4020434-06	TRANSPORT ASSEMBLY		1
9	4020478-01	HEAD ASSY, TWO TRACK (METAL FACE)		1
10				
11	4030431-AA	GUIDE ASSY, 1/4" TAKE UP		1
12	4030431-AB	GUIDE ASSY, 1/4" SUPPLY		1
13	4041256-03	COVER ASSY, HEAD		1
14				
15	4050754-16	PWA, AUDIO, MAIN BOARD		2
16	4050755-03	PWA, PADNET, 2-SPEED		2
17	4050778-09	PWA, REEL SERVO		1
18	4050787-06	PWA, TRANSPORT LOGIC & TAPE TIMER		1
19	4050788-06	PWA, AUDIO CONTROL		1
20	4050800-01	PWA, EXTENDER CARD		1
21	4050860-06	PWA, CAPSTAN SERVO		1
22				
23	4110147-21	SYSTEM, I.D. TAG		1
24	4170330-AA	LABEL, AUDIO BOARD, POSITION (1)		1
25	4170330-AB	LABEL, AUDIO BOARD, POSITION (2)		1
26	4170339-AA	WARNING CARD, LINE VOLTAGE, 115V ▷1		1
27	4170339-AB	WARNING CARD, LINE VOLTAGE, 230V ▷1		1
28	4320062-01	RETAINER, TRANSPORT PANEL		1
29	4110109-01	LABEL, NO. 1		2
30	4110109-02	LABEL, NO. 2		2
31	470-010	SCREW, CAP, HEX SOCKET HD, 4-40 X 0.375 LG.		4
32	502-373	WASHER, SPRING LOCK, NO. 4		4
33	501-169	WASHER, PLAIN, SM. PATTERN, NO. 4		4
34	4010349-01	ACCESSORIES		REF
		NOTES:		
		▷1 OPTION: SELECT AS DIRECTED BY SALES ORDER.		

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 00
1	4010254-05	I/O MAIN FRAME		2
2	4010267-01	KIT, MISC. PARTS 1/2"		1
3	4010258-AF	CABINET (4-CHAN)		1
4				
5	4020409-08	I/O MODULE		4
6	4020405-05	CONTROL UNIT, 4-CHANNEL		1
7				
8	4020434-06	TRANSPORT ASSEMBLY		1
9	4020479-01	HEAD ASSY, FOUR TRACK (METAL FACE)		1
10				
11	4030432-AE	GUIDE ASSY, 1/2" TAKE UP		1
12	4030432-AF	GUIDE ASSY, 1/2" SUPPLY		1
13	4041256-03	COVER ASSY, HEAD		1
14				
15	4050754-16	PWA, AUDIO MAIN BOARD		4
16	4050755-03	PWA, PADNET, 2-SPEED		4
17	4050778-09	PWA, REEL SERVO		1
18	4050787-06	PWA, TRANSPORT LOGIC & TAPE TIMER		1
19	4050788-06	PWA, AUDIO CONTROL		1
20	4050800-01	PWA, EXTENDER CARD		1
21	4050860-06	PWA, CAPSTAN SERVO		1
22	4010349-01	ACCESSORIES		REF
23	4110147-22	SYSTEM, I.D. TAG		1
24	4170330-AA	LABEL, AUDIO BOARD POSITION (1)		1
25	4170330-AB	LABEL, AUDIO BOARD, POSITION (2)		1
26	4170330-AC	LABEL, AUDIO BOARD POSITION (3)		1
27	4170330-AD	LABEL, AUDIO BOARD POSITION (4)		1
28	4320062-01	RETAINER, TRANSPORT PANEL		1
29	4170339-AA	WARNING CARD, LINE VOLTAGE, 115V	1	1
30	4170339-AB	WARNING CARD, LINE VOLTAGE, 230V	1	1
31	4110109-01	LABEL, NO. 1		2
32	4110109-02	LABEL, NO. 2		2
33	4110109-03	LABEL, NO. 3		2
34	4110109-04	LABEL, NO. 4		2
35	470-010	SCREW, CAP, HEX SOCKET HD, 4-40 X 0.375 LG.		8
36	502-373	WASHER, SPRING LOCK NO. 4		8
37	501-169	WASHER, PLAIN, SM. PATTERN NO. 4		8

NOTES:
1 OPTION: SELECT AS DIRECTED BY SALES ORDER.

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 00
1	4010254-05	I/O MAIN FRAME		1
2	4010255-01	KIT, MISC. PARTS 1/4"		1
3	4010258-AE	CABINET (1 & 2 CHAN)		1
4				
5	4020409-08	I/O MODULE		2
6	4020405-05	CONTROL UNIT, 4 CHANNEL		1
7				
8	4020434-06	TRANSPORT ASSEMBLY		1
9	4020481-01	HEAD ASSY, STEREO, (EUROPEAN), METAL FACE		1
10				
11	4030431-AA	GUIDE ASSY, 1/4" TAKE UP		1
12	4030431-AB	GUIDE ASSY, 1/4" SUPPLY		1
13	4041256-03	COVER ASSY, HEAD		1
14				
15	4050754-16	PWA, AUDIO, MAIN BOARD		2
16	4050775-03	PWA, PADNET, 2-SPEED		2
17	4050778-09	PWA, REEL SERVO		1
18	4050787-06	PWA, TRANSPORT LOGIC & TAPE TIMER		1
19	4050788-06	PWA, AUDIO CONTROL		1
20	4050800-01	PWA, EXTENDER CARD		1
21	4050860-06	PWA, CAPSTAN SERVO		1
22				
23	4110147-21	SYSTEM, I.D. TAG		1
24	4170330-AA	LABEL, AUDIO BOARD POSITION (1)		1
25	4170330-AB	LABEL, AIDIO BOARD POSITON (2)		1
26	4170385-01	LABEL, TAPE 456		1
27				
28	4320062-01	RETAINER, TRANSPROT PANEL		1
29	4010349-01	ACCESSORIES		REF
30	401299-AB	KIT, CCIR, HOLD DOWN		1
31	4170339-AA	WARNING CARD, LINE VOLTAGE, 115V [1]		1
32	4170339-AB	WARNING CARD. LINE VOLTAGE, 230V [1]		1
33	4110109-01	LABEL NO. 1		2
34	4110109-02	LABEL NO. 2		2
35	470-010	SCREW, CAP, HEX SOCKET HD, 4-40 X 0.375 LG.		4
36	502-373	WASHER, SPRING LOCK NO. 4		4
37	501-169	WASHER, PLAIN, SM. PATTERN NO. 4		4

NOTES:
[1] OPTION: SELECT AS DIRECTED BY SALES ORDER.

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 00
1	4010254-05	I/O MAIN FRAME		1
2	4010255-01	KIT, MISC. PARTS 2"		1
3				
4	4020405-05	CONTROL UNIT, 4-CHANNEL		1
5	4020409-08	I/O MODULE		1
6	4020434-06	TRANSPORT ASSEMBLY		1
7	4020480-01	HEAD ASSY., FULL TRACK		1
8				
9	4030431-AA	GUIDE ASSY., 2" TAKE UP		1
10	4030431-AB	GUIDE ASSY., 2" SUPPLY		1
11				
12	4041256-03	COVER ASSY., HEAD		1
13	4041247-02	PANEL, BLANK		1
14				
15	4050754-16	PWA, AUDIO MAIN BOARD		1
16	4050755-03	PWA, PADNET, 2-SPEED		1
17	4050778-09	PWA, REEL SERVO		1
18	4050787-06	PWA, TRANSPORT LOGIC & TAPE TIMER		1
19	4050788-06	PWA, AUDIO CONTROL		1
20	4050800-01	PWA, EXTENDER CARD		1
21	4050860-06	PWA, CAPSTAN SERVO		1
22				
23	4110109-01	LABEL, NO. 1.		1
24				
25				
26				
27	4110147-27	SYSTEM, I.D. TAG		1
28				
29	4170330-AA	LABEL, AUDIO BOARD, POSITION (1)		1
30	470-010	SCREW, CAP, HEX SOCKET HD., 4-40 X 0.375 LG.		2
31	501-169	WASHER, PLAIN, SM. PATTERN NO. 4		2
32	502-373	WASHER, SPRING LOCK NO. 4		2
33	4170339-AA	WARNING CARD, LINE VOLTAGE, 115V.	1	1
34	4170339-AB	WARNING CARD, LINE VOLTAGE, 230V.		
35	4170385-01	LABEL, TAPE TYPE 456		1
36	4010349-01	ACCESSORIES		REF
37	4320062-01	RETAINER, TRANSPORT PANEL		1

NOTES:
1 OPTION: SELECT AS DIRECTED BY SALES ORDER.

4010381-00 ATR-100 TAPE RECORDER/REPRODUCER, TWO TRACK REV.-
NEXT HIGHER ASSEMBLY, CATALOG

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 00
1	4010254-05	I/O MAIN FRAME		1
2	4010255-01	KIT, MISC PARTS ½"		1
3				
4	4020405-05	CONTROL UNIT, 4-CHANNEL		1
5	4020409-08	I/O MODULE		2
6	4020434-06	TRANSPORT ASSEMBLY		1
7	4020478-01	HEAD ASSY., TWO TRACK		1
8				
9	4030431-AA	GUIDE ASSY., ½" TAKE UP		1
10	4030431-AB	GUIDE ASSY., ½" SUPPLY		1
11				
12	4041256-03	COVER ASSY., HEAD		1
13				
14				
15	4050754-16	PWA, AUDIO MAIN BOARD		2
16	4050755-03	PWA, PADNET, 2-SPEED		2
17	4050778-09	PWA, REEL SERVO		1
18	4050787-06	PWA, TRANSPORT LOGIC & TAPE TIMER		1
19	4050788-06	PWA, AUDIO CONTROL		1
20	4050800-01	PWA, EXTENDER CARD		1
21	4050860-06	PWA, CAPSTAN SERVO		1
22				
23	4110109-01	LABEL, NO. 1		2
24	4110109-02	LABEL, NO. 2		2
25				
26	470-010	SCREW, CAP, HEX SOCKET HD., 4-40 X 0.375 LG.		4
27	4110147-29	SYSTEM, I.D. TAG		1
28	501-169	WASHER, PLAIN, SM. PATTERN NO. 4		4
29	4170330-AA	LABEL, AUDIO BOARD, POSITION (1)		1
30	4170330-AB	LABEL, AUDIO BOARD, POSITION (2)		1
31	502-373	WASHER, SPRING LOCK NO. 4		4
32	4010349-01	ACCESSORIES		REF
33	4170339-AA	WARNING CARD, LINE VOLTAGE, 115V.	1	1
34	4170339-AB	WARNING CARD, LINE VOLTAGE, 230V.		
35	4170385-01	LABEL, TAPE TYPE 456		1
36				
37	4320062-01	RETAINER, TRANSPORT PANEL		1

NOTES:
1 — OPTION: SELECT AS DIRECTED BY SALES ORDER.

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 00
1	4010254-05	I/O MAIN FRAME		1
2	4010255-01	KIT, MISC. PARTS ¼"		1
3				
4	4020405-05	CONTROL UNIT, 4-CHANNEL		1
5	4020409-08	I/O MODULE		2
6	4020434-06	TRANSPORT ASSEMBLY		1
7	4020481-01	HEAD ASSY., TWO TRACK		1
8				
9	4030431-AA	GUIDE ASSY., ¼" TAKE UP		1
10	4030431-AB	GUIDE ASSY., ¼" SUPPLY		1
11				
12	4041256-03	COVER ASSY., HEAD		1
13				
14				
15	4050754-16	PWA, AUDIO MAIN BOARD		2
16	4050755-03	PWA, PADNET, 2-SPEED		2
17	4050778-09	PWA, REEL SERVO		1
18	4050787-06	PWA, TRANSPORT LOGIC & TAPE TIMER		1
19	4050788-06	PWA, AUDIO CONTROL		1
20	4050800-01	PWA, EXTENDER CARD		1
21	4050860-06	PWA, CAPSTAN SERVO		1
22				
23	4110109-01	LABEL, NO.1.		2
24	4110109-02	LABEL, NO.2.		2
25				
26				
27	4110147-32	SYSTEM, I.D. TAG		1
28	470-010	SCREW, CAP, HEX SOCKET HD., 4-40 X 0.375 LG.		4
29	4170330-AA	LABEL, AUDIO BOARD, POSITION (1)		1
30	4170330-AB	LABEL, AUDIO BOARD, POSITION (2)		1
31	501-169	WASHER, PLAIN, SM. PATTERN NO. 4		4
32	502-373	WASHER, SPRING LOCK NO. 4		4
33	4170339-AA	WARNING CARD, LINE VOLTAGE, 115V.	1	1
34	4170339-AB	WARNING CARD, LINE VOLTAGE, 230V.		
35	4170385-01	LABEL, TAPE TYPE 456		1
36	4010349-01	ACCESSORIES		REF
37	4320062-01	RETAINER, TRANSPORT PANEL		1

NOTES:
1. OPTION: SELECT AS DIRECTED BY SALES ORDER.

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 00
1	4010254-05	I/O MAIN FRAME		2
2	4010267-01	KIT, MISC. PARTS 1/2"		1
3				
4	4020405-05	CONTROL UNIT, 4-CHANNEL		1
5	4020409-08	I/O MODULE		4
6	4020434-06	TRANSPORT ASSEMBLY		1
7	4020479-01	HEAD ASSY.,FOUR TRACK		1
8				
9	4030432-AE	GUIDE ASSY., 1/2" TAKE UP		1
10	4030432-AF	GUIDE ASSY., 1/2" SUPPLY		1
11				
12	4041256-03	COVER ASSY., HEAD		1
13				
14	470-010	SCREW, CAP, HEX SOCKET HD., 4-40 X 0.375 LG.		8
15	4050754-16	PWA, AUDIO MAIN BOARD		4
16	4050755-03	PWA, PADNET, 2-SPEED		4
17	4050778-09	PWA, REEL SERVO		1
18	4050787-06	PWA, TRANSPORT LOGIC & TAPE TIMER		1
19	4050788-06	PWA, AUDIO CONTROL		1
20	4050800-01	PWA, EXTENDER CARD		1
21	4050860-06	PWA, CAPSTAN SERVO		1
22	501-169	WASHER, PLAIN, SM, PATTERN NO. 4		8
23	4110109-01	LABEL, NO. 1.		2
24	4110109-02	LABEL, NO. 2.		2
25	4110109-03	LABEL, NO. 3.		2
26	4110109-04	LABEL, NO. 4.		2
27	4110147-25	SYSTEM, I.D. TAG		1
28	502-373	WASHER, SPRING LOCK NO. 4		8
29	4170330-AA	LABEL, AUDIO BOARD,POSITION(1)		1
30	4170330-AB	LABEL, AUDIO BOARD, POSITION (2)		1
31	4170330-AC	LABEL, AUDIO BOARD, POSITION (3)		1
32	4170330-AD	LABEL, AUDIO BOARD, POSITION (4)		1
33	4170339-AA	WARNING CARD, LINE VOLTAGE, 115V.		
34	4170339-AB	WARNING CARD, LINE VOLTAGE, 230V.	1	1
35	4170385-01	LABEL, TAPE TYPE 456		1
36	4010349-01	ACCESSORIES		REF
37	4320062-01	RETAINER, TRANSPORT PANEL		1

NOTES:
1 OPTION: SELECT AS DIRECTED BY SALES ORDER.

4020434-05 TRANSPORT ASSEMBLY REV. AA
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	HDWE USED	QTY REQD PER DASH NUMBER				
				-01	-02	-03	-04	-05
1	4020435-01	ELECTRONICS ASSY		1	1	1	1	-
2	4020406-08	POWER SUPPLY ASSY		1	1	1	1	-
3	4030390-03	CAPSTAN ASSY		1	1	1	1	1
4	4030394-AA	ARM ASSY, TAPE LIFTER		1	1	1	1	1
5	4030394-AB	ARM ASSY, TAPE LIFTER		1	1	1	1	1
6	4030398-03	TURNTABLE ASSY		2	2	2	2	2
7	4020406-10	POWER SUPPLY ASSY						1
8	4020435-02	ELECTRONIC ASSY						1
9	4030400-02	TAPE LIFTER ASSY		1	1	1	1	1
10	4030408-02	MOTOR REEL DRIVE ASSY ALTERNATE		2	2	2	2	2
11	4030411-01	SPRING LATCH ASSY, HEAD GATE		1	1	1	1	1
12	4030412-AE	SOLENOID ASSY, TAPE TENS, TAKE UP		1	1	1	1	1
13	4030412-AF	SOLENOID ASSY, TAPE TENS, SUPPLY		1	1	1	1	1
14								
15	4041219-01	SHAFT ASSY, TIMER		1	1	1	1	1
16	4041226-01	STOP ASSY, SUPPLY ARM		1	1	1	1	1
17	4041227-03	BAR, CAPSTAN SENSOR		1	1	1	1	1
18	4041229-02	GATE ASSY, HEAD		1	1	1	1	1
19	4041230-01	TAPE TIMER WHEEL ASSY		1	1	1	1	1
20	4041231-01	CAPSTAN/TACH ASSY		1	1	1	1	1
21	4041232-01	FILLER PANEL ASSY		1	1	-	-	-
22	4041288-01	FILTER PANEL ASSY				1	1	1
23	4041241-02	TOP PLATE ASSY, TRANSPORT		1	1	-	-	-
24	4041242-01	BRACKET ASSY, SPEED SWITCH		1	1	1	1	1
25	4041249-02	PELLER ASSY, TAPE		1	1	1	1	1
26	4041250-02	SHIELD ASSY, REEL DRIVE		1	1	1	2	2
27	4041258-01	BAR ASSY, HEAD GATE		1	1	1	1	1
28	4041241-04	TOP PLATE ASSY, TRANSPORT					1	1
29	4840423	TRANSPORT INTERCONNECT			E	E	E	E
30	4050814-05	HARNESS, TRANSPORT		1	1	1	1	1
31	4050815-01	HARNESS ASSY, TRANSPORT TO POWER SUPPLY		1	1	1	1	1
32	4050818-01	HARNESS, TACHOMETERS #2		1	1	1	1	1
33								
34	4050832-02	PWA, CAPSTAN TACH SENSOR		1	1	1	1	1
35	4050834-03	PWA, TENSION SENSOR LED		2	2	2	2	2
36	4050835-01	PWA, PHOTENTIOMATIC		2	2	2	2	2
37	4050836-01	PWA, TIMER TACHOMETER		1	1	1	1	1

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA | CODE IDENT NO. 92739 | LIST OF MATERIALS | LM-4020434 SHEET 2 | AA

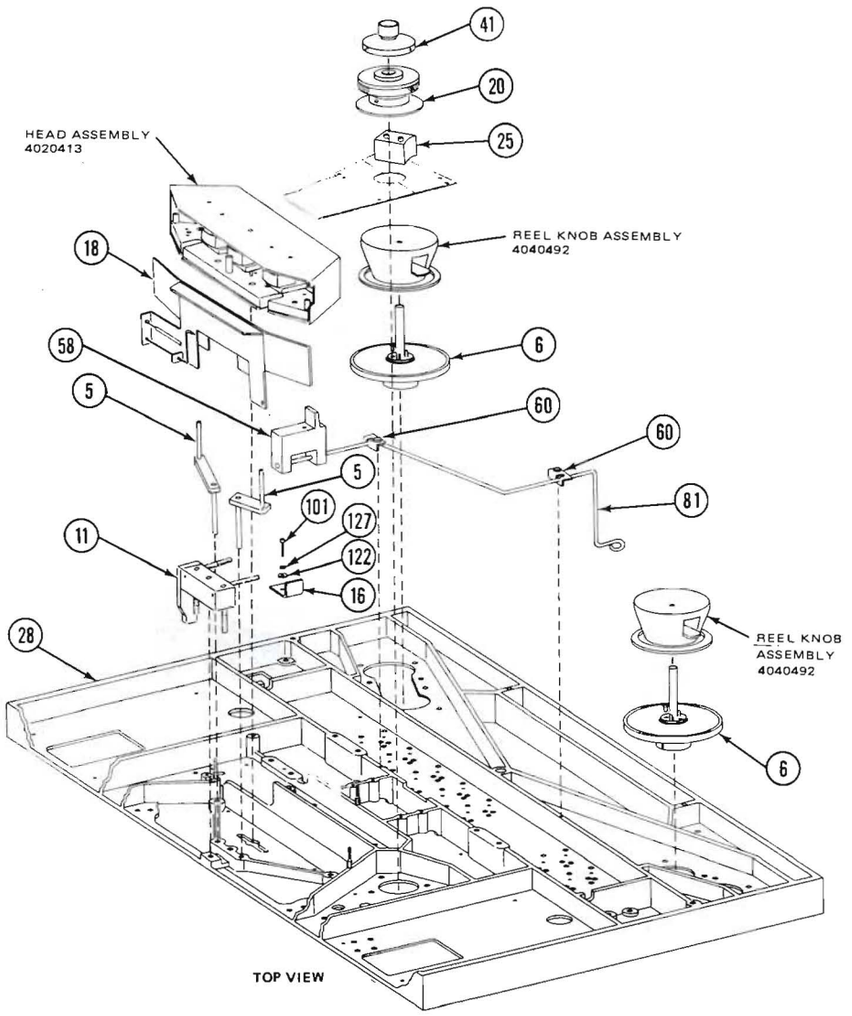
ITEM NO.	PART NUMBER	DESCRIPTION	HDWE USED	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05
38	4050862-01	PWA, CAPSTAN TACH LED		1	1	1	1	1
39	4110302-01	OVERLAY, TRANSPORT FRONT			1	1	1	1
40	4270145-01	CLIP, TRANSPORT PANEL RETAINING				2	2	2
41	4100086-02	KNOB, CAPSTAN		1	1	1	1	1
42	4110295-02	OVERLAY, TRANSPORT REAR		1	1	1	1	1
43	~~4110296-01~~	~~OVERLAY, TRANSPORT FRONT~~	~~112~~	~~1~~	~~1~~			-
44	4130065-01	PAD, TRANSPORT		8	8	8	8	8
45	4130177-01	PAD, TRANSPORT MICROSWITCH			2	2	2	2
46	~~4200076-AC~~	~~INSERT, OVERLAY~~	~~84~~	~~1~~	~~1~~			-
47	~~4200076-AD~~	~~INSERT, OVERLAY~~	~~84~~	~~1~~	~~1~~			-
48	4200090-AA	INSERT, OVERLAY			1	1	1	1
49	~~4230252-02~~	~~ACTUATOR, SWITCH~~	~~4 114~~	~~1~~	~~1~~			-
50	4230277-01	ROD, POWER SW		1	1	1		-
51	4260537-01	BRACKET, ELECTR. MTG.		1			1	-
52	~~4260567-01~~	~~BRACKET, SWITCH MOUNTING~~	~~58,121,136, 142,144,126~~		~~2~~	~~2~~	~~2~~	-
53	4050873-01	INDUCTOR BOX ASSEMBLY			1	1	1	1
54	4290872-AA	COVER, REEL INSERT		1	1	1	1	1
55	4290872-AB	COVER, REEL INSERT		1	1	1	1	1
56	4290933-03	COVER, TACH, FRONT		1	1	1	1	1
57	4290949-01	COVER, TACH REAR		1	1	1	1	1
58	4230282-01	ACTUATOR, SWITCH			1	1	1	1
59	4320057-01	RETAINER, POWER BAR		2	2	2	2	2
60	4320061-01	RETAINER, ACTUATOR		1	1	1	1	1
61	4600162-01	SHIELD, REEL MOTOR END		2	2	2	2	2
62	4200090-AB	INSERT, OVERLAY			1	1	1	-
63	6000035-01	LABEL, IDENTIFICATION		1	1	1	1	1
64	4320062-01	RETAINER TRANSPORT PANEL				1	1	1
65	013-678	DIODE 1A (1N4531)	REF:CR5,6,7	3	3	3	3	3
66	014-630	TRANSISTOR, POWER NPN (2N3055)	REF:Q5-13,	9	9	9	9	9
67	4260590-01	BRACKET, SWITCH MOUNTING					2	2
68								
69	059-583	RESISTOR, W.W. .33 OHMS, 5%, 10W	REF:R5	1	1	1	1	1
70	059-584	RESISTOR, W.W. 2.5 OHMS, 5%, 10W	REF:R1-4	4	4	4	4	4
71	018-010	ADHESIVE					A/R	A/R
72	087-388	COMPOUND, HEATSINK DC 340		A/R	A/R	A/R	A/R	A/R
73	087-770	GREASE, MOLYLUBE "G"		A/R	A/R	A/R	A/R	A/R
74	120-398	SWITCH, SENSITIVE, SPDT			2	2	2	2
75	~~120-436~~	~~SWITCH, SENSITIVE, SPDT~~	~~97,85,123,124~~	~~2~~	~~2~~			-
76	145-539	PLUG BANANA (SMITH #103)		3	3	3	3	3
77								
78	172-004	LUG, SOLDER #4		2	2	2	2	2
79	180-954	TERMINAL STRIP 4 POS	REF:TB2	1	1	1	1	1
80								
81	4230277-02	ROD, POWER SW					1	1
82								

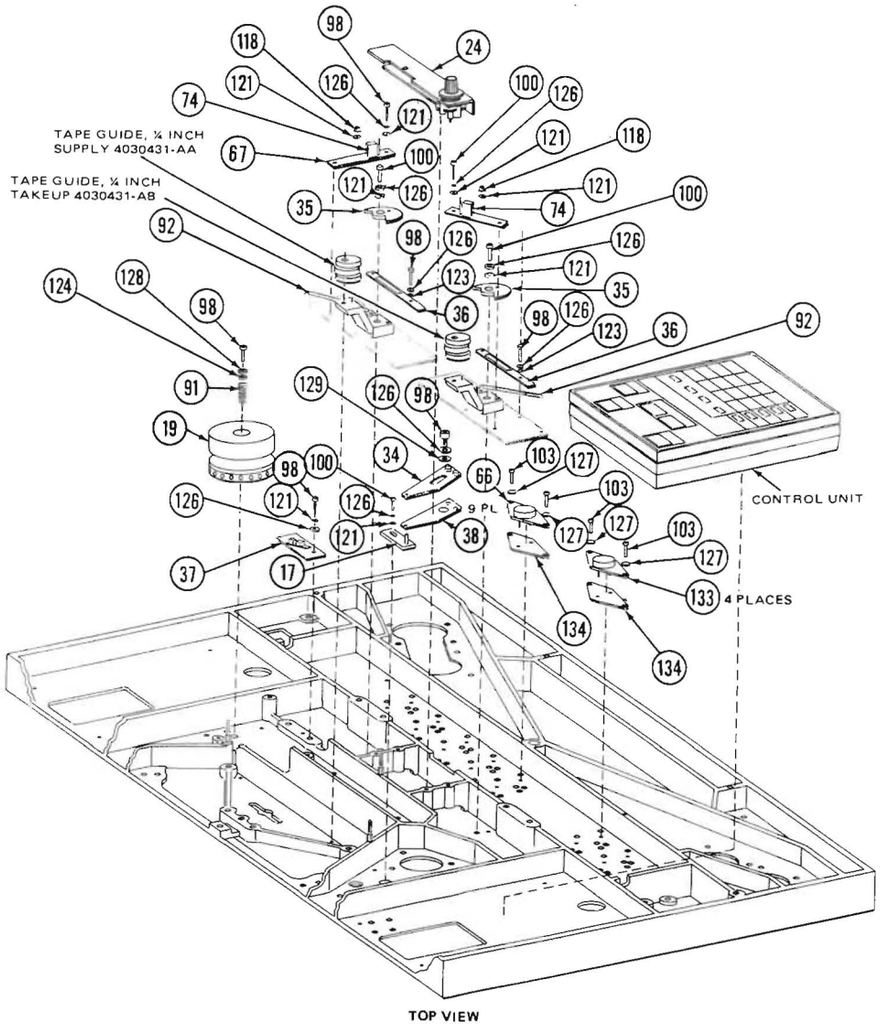
AMPEX \| Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 4020434 SHEET 3	REV AA

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05
83								
84	225-432	TAPE, DOUBLE SIDED .50 WD		A/R	A/R	A/R	A/R	A/R
85	~~269-338~~	~~RUBBER STRIP, FOAM .125 THK X .25 WD~~		~~A/R~~	~~A/R~~	-	-	-
86								
87								
88	302-395	STRAP, CABLE "MOUSE TAIL"		2	2	2	2	2
89								
90	352-290	SPRING, COMPRESSION, .480 DIA X .50 LG		1	1	1	1	1
91	352-382	SPRING, COMPRESSION, .300 DIA X .37 LG		1	1	1	1	1
92	352-441	SPRING, EXTENSION, .094 DIA X 1.00 LG		2	2	2	2	2
93								
94	430-517	RING, RETAINING, TRUARC 5103-37		1	1	1	1	1
95								
96	470-005	SCREW, CAP, HEX SOC, 2-56 X 7/16		4	4	4	4	4
97	~~470-008~~	~~SCREW, CAP, HEX SOC, 4-40 X 1/4~~		~~6~~	~~6~~	~~6~~	~~6~~	
98	470-009	SCREW, CAP, HEX SOC, 4-40 X 5/16		4	4	4	10	10
99	~~470-010~~	~~SCREW, CAP, HEX SOC, 4-40 X 3/8~~		~~4~~	~~4~~	~~4~~	~~4~~	
100	470-012	SCREW, CAP, HEX SOC, 4-40 X 1/2		2	2	2	4	4
101	470-018	SCREW, CAP, HEX SOC, 6-32 X 3/8		4	4	4	5	5
102								
103	470-020	SCREW, CAP, HEX SOC, 6-32 X 1/2		29	29	29	29	29
104	470-022	SCREW, CAP, HEX SOC, 6-32 X 3/4		3	3	3	3	3
105	470-039	SCREW, CAP, HEX SOC, 10-32 X 5/8		15	15	15	16	16
106	470-049	SCREW, CAP, HEX SOC, 1/4-20X1		3	3	3	3	3
107	470-105	SCREW, CAP, HEX SOC, 10-32X1 1/2		8	8	8	8	8
108								
109	470-136	SCREW, CAP, HEX SOC, 4-40 X 7/8		2	2	2	2	2
110	470-536	SCREW, CAP, FLAT HD, HEX SOC, 8-32 X 3/8		4	4	4	4	4
111	470-635	SCREW, CAP, HEX SOC, 4-40 X 1 1/4		2	2	2	2	2
112	470-642	SCREW, CAP, FLAT HD, HEX SOC, 4-40 X 1/2		16	16	12	12	12
113	476-505	SCREW, SELF TAP, 4-40 X 1/4 LG		13	13	13	13	13
114	477-500	SCREW, SET, CUP PT, 6-32 X.50 LG					2	2
115	~~477-556~~	~~SCREW, SET, CONE PT, 6-32 X 1/2~~		~~1~~	~~1~~	~~1~~	~~1~~	~~1~~
116	477-525	SCREW, SET, CUP PT, 6-32 X 3/8		2	2	2	2	2
117	477-562	SCREW, SET, CONE PT, 8-32 X .50					1	1
118	496-004	NUT, ASSEMBLED WASHER #4		4	4	4	6	6
119	496-007	NUT, ASSEMBLED WASHER #10		4	4	4	4	4
120	501-908	WASHER, FLAT #10, .06 THK			1	1	4	4
121	501-008	WASHER, FLAT #4		12	2	12	10	10
122	501-009	WASHER, FLAT #6		1	1	1	1	1
123	501-169	WASHER, FLAT #4 SM PATTERN		4	4	4	4	4
124	501-184	WASHER, FLAT #2		4	4	4	4	4
125	502-001	WASHER, SPRING #2		4	4	4	4	4
126	502-002	WASHER, SPRING #4		20	20	20	16	16
127	502-003	WASHER, SPRING #6		33	33	33	34	34

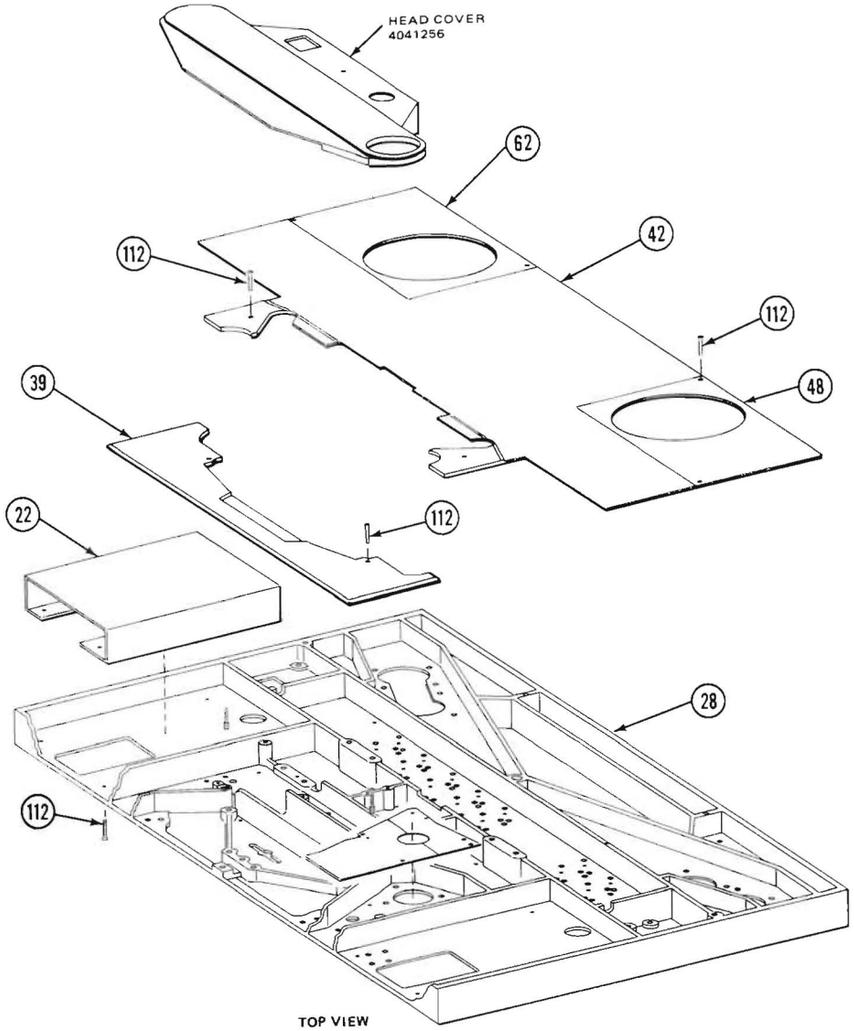
AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA | CODE IDENT NO 92739 | LIST OF MATERIALS | LM-4020434 SHEET 4 | REV AA

ITEM NO.	PART NUMBER	DESCRIPTION	HDWE USED	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05
128	502-005	WASHER, SPRING #10		16	16	16	24	24
129	502-389	WASHER, FLAT #4, .375 O.D.		2	2	2	2	2
130								
131	502-014	WASHER, LOCK, EXT TOOTH #6				1	1	1
132	502-025	WASHER, LOCK, INT TOOTH #6		3	3	3	3	3
133	580-781	TRANSISTOR, POWER NPN (2N6254)	REF:Q1-4,	4	4	4	4	4
134	580-445	INSULATOR, POWER TRANSISTOR	REF:Q1-13	13	13	13	13	13
135								
136	280-327	SPACER, HEX 4-40 X 1/2 LG		2	2	2	2	2
137	502-027	WASHER, LOCK, INT TOOTH #10		8	8	8	4	4
138	302-335	STRAP, CABLE, TY RAP, .09 WD		3	3	3	3	3
139	~~611-607~~	~~WIRE, PVC 22 GA WHITE~~		~~A/R~~	~~A/R~~	~~A/R~~	~~A/R~~	
140								
141	269-370	RUBBER, EXTRUDED, U SHAPE		A/R	A/R	A/R	A/R	A/R
142	617-572	WIRE, SILICONE, MULTISTRAND, 26 AWG		2	2	2		2
143								
144	408-170	PIN, GROOVED, .094 DIA X .50 LG		2	2	2	2	2
145	~~A07-023~~	~~GLYPTAL, RED~~		~~A/R~~	~~A/R~~	~~A/R~~	~~A/R~~	
146								
147	502-028	WASHER, LOCK, INT 1/4		3	3	3	3	3
148	501-067	WASHER, PLAIN, 1/4"					3	3

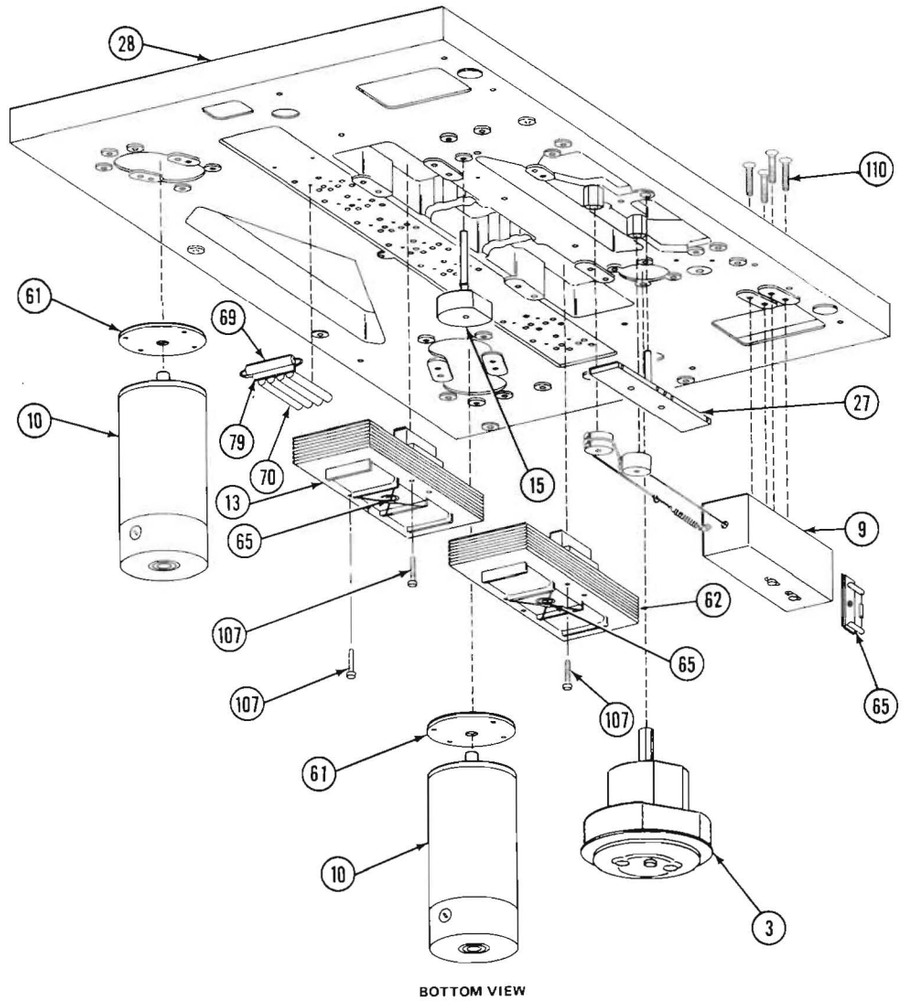




Assembly No. 4020434
Transport Assembly
(Sheet 1 of 2)

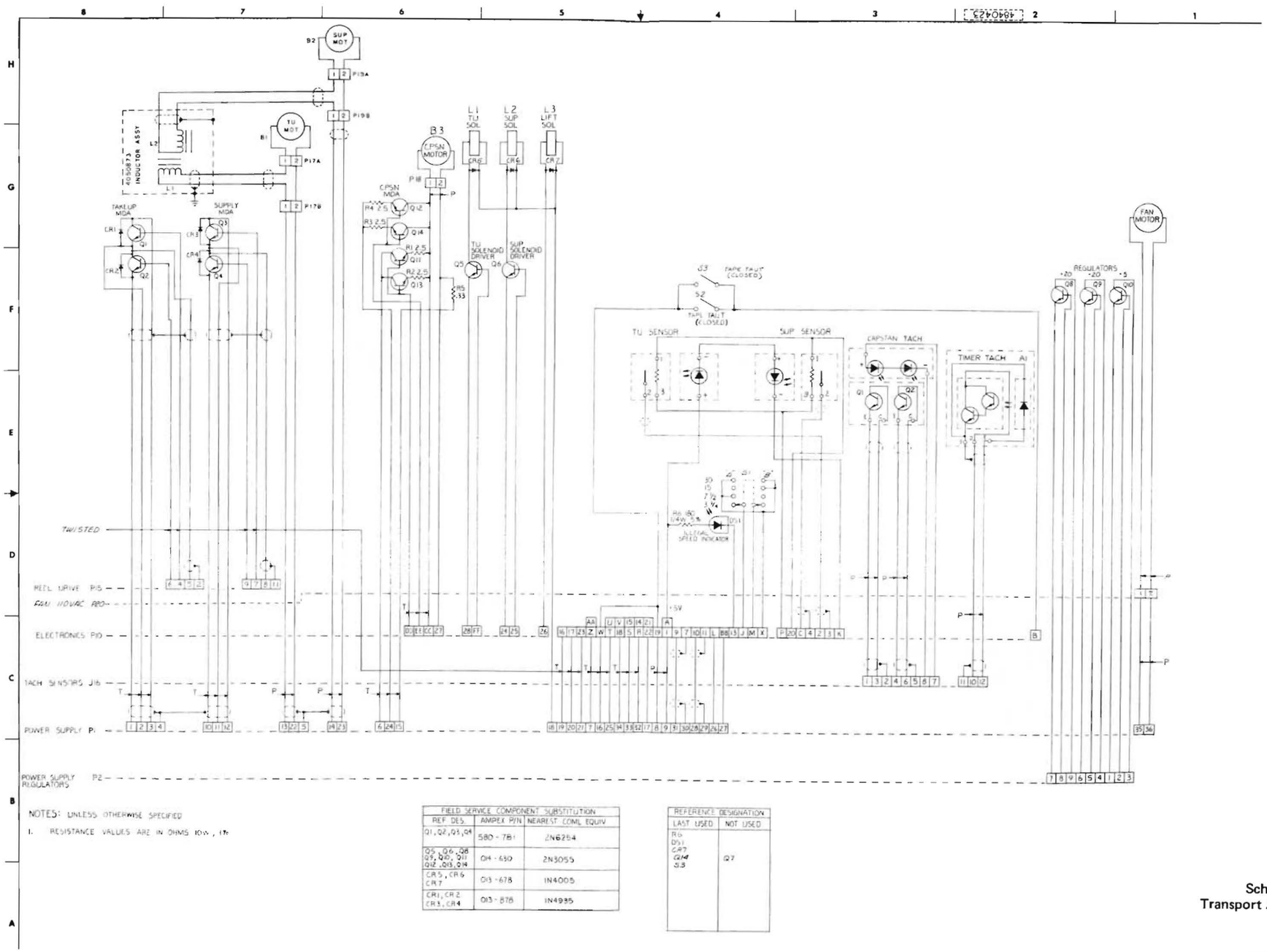


TOP VIEW



BOTTOM VIEW

Assembly No. 4020434
Transport Assembly
(Sheet 2 of 2)



NOTES: UNLESS OTHERWISE SPECIFIED

1. RESISTANCE VALUES ARE IN OHMS 10W, 1%

FIELD SERVICE COMPONENT SUBSTITUTION		
REF DES.	AMPEX P/N	NEAREST COML EQUIV
Q1, Q2, Q3, Q4	580 - 781	2N6284
Q5, Q6, Q8 Q9, Q10, Q11 Q12, Q13, Q14	014 - 650	2N3055
CR5, CR6 CR7	013 - 678	1N4005
CR1, CR2 CR3, CR4	013 - 878	1N4935

REFERENCE DESIGNATION	
LAST USED	NOT USED
R6 D51 CR7 Q14 S3	Q7

Schematic No. 4840423E.
Transport Assembly Interconnect Diagram

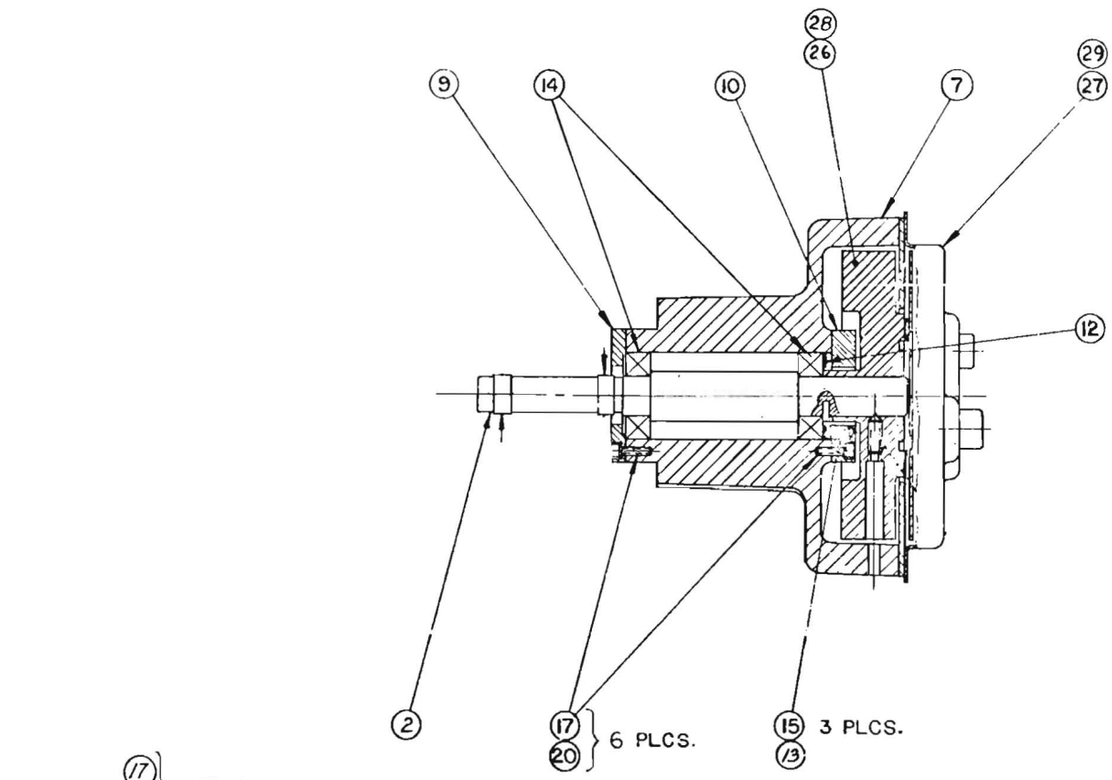
4030390-03 CAPSTAN ASSEMBLY REV. F

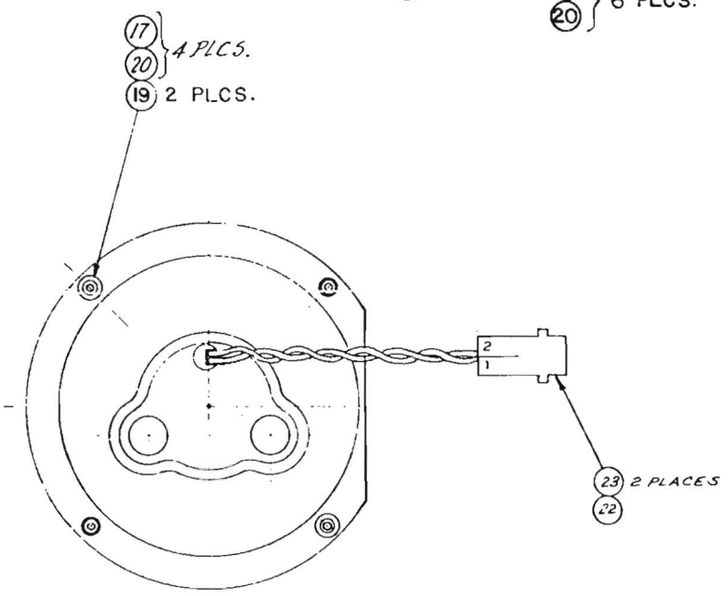
NEXT HIGHER ASSEMBLY 4020434

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
1	4041214-01		SHAFT ASSY, CAPSTAN				-
2	4041264-01		SHAFT ASSY, CAPSTAN				1
3	4041215-01		ROTOR ASSY, CAPSTAN	1			-
4	4590074-01		BRUSH PLATE MOD	1			-
5	4041224-01		ROTOR ASSY, CAPSTAN	1			-
6	4590080-01		BRUSH PLATE MOD	1			-
7	4290832-01		HOUSING, CAPSTAN				1
8							
9	4320036-01		RETAINER, BEARING FACE				1
10	4320056-01		RETAINER, SPRING				1
11							
12	4330342-01		PLATE, BEARING PRESSURE				1
13	087-614		ADHESIVE, SILICONE, DOW CORNING 7732			A/R	A/R
14	087-754		GREASE, ANDOK C		A/R	A/R	A/R
15	352-209		SPRING, COMPRESSION, .180 O.D. X .500 LG		3	3	3
16							
17	470-010		SCREW, CAP, HEX SOC #4-40 X .375 LG		10	10	10
18							
19	501-008		WASHER, PLAIN #4		2	2	2
20	502-002		LOCK WASHER #4		10	10	10
21							
22	167-347		CONNECTOR, FEMALE			1	1
23	167-349		CONTACT, PIN		2	2	2
24							
25							
26	4041215-02		ROTOR ASSY	1			1
27	4590074-01		BRUSH PLATE	1			1
28	4041224-02		ROTOR ASSY	1			1
29	4590080-01		BRUSH PLATE	1			1

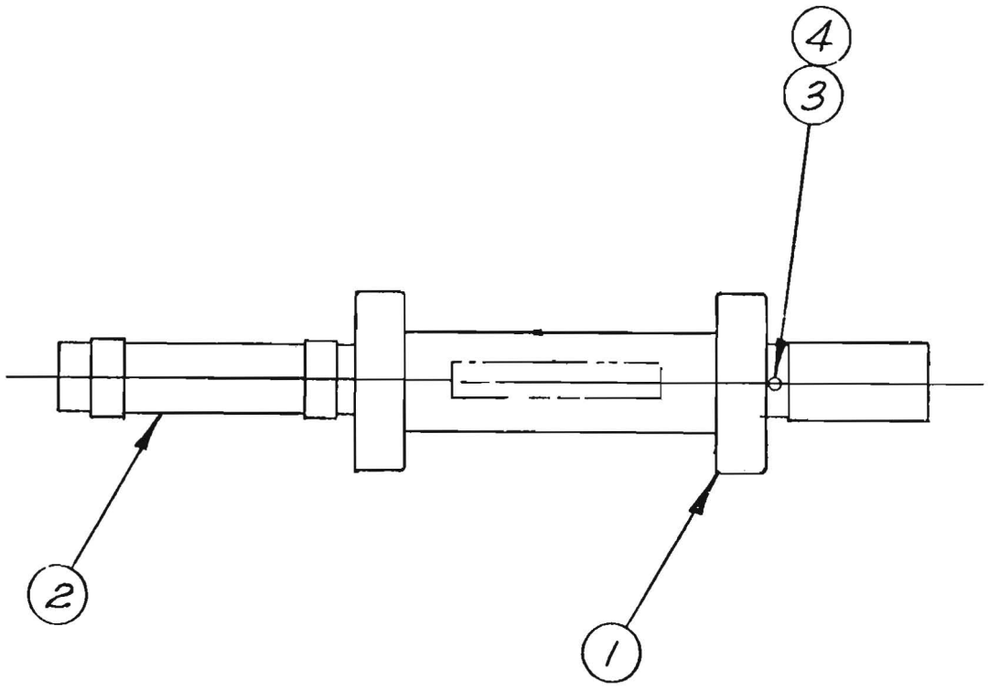
NOTES:

1 ALTERNATE PAIR, USE ONE





Assembly No. 4030390. Capstan

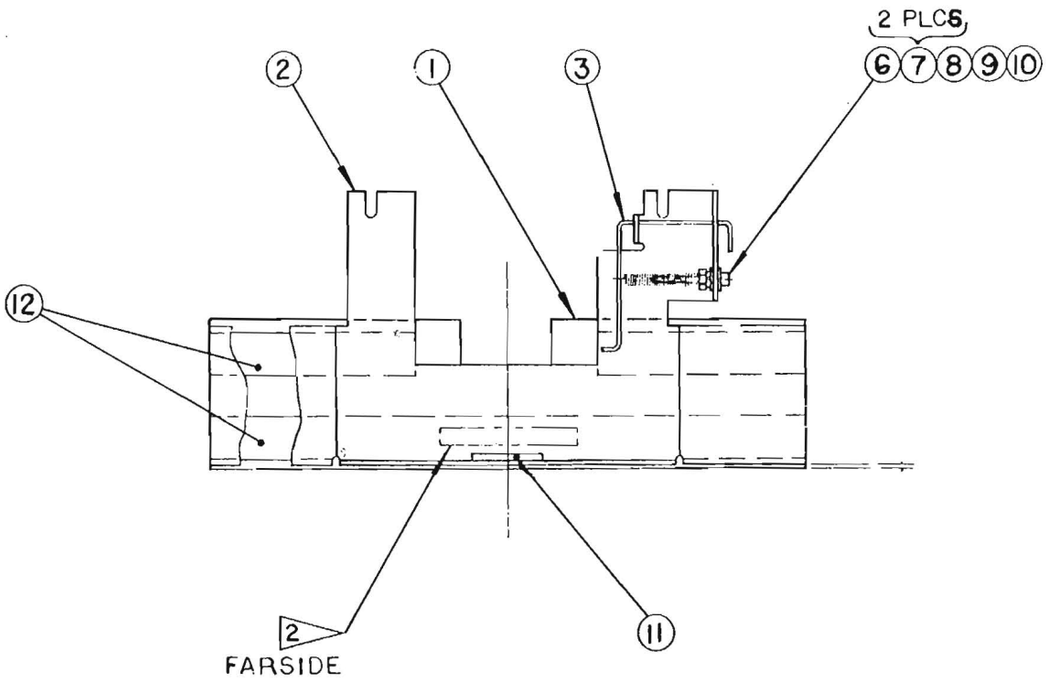


-01	ITEM NO.	PART NUMBER		DESCRIPTION
2	1	4200075-01		BEARING, BALL
1	2	4210388-01		SHAFT, CAPSTAN
A/R	3	018-450		ADHESIVE, LOCTITE #290
1	4	406-020		PIN, SPRING, .062 DIA X .25 LG

PARTS LIST

Assembly No. 4041264. Capstan Shaft

ITEM NO.	PART NUMBER	D DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1	4600095-01	SHIELD HEAD FRONT		1	1
2	4290955-01	GATE, HEAD		1	1
3	4120036-01	CATCH, HEAD GATE		1	1
4					
5					
6	470-418	SCREW, CAP, HEX SOC #2-56 x.750 LG		1	1
7	501-155	WASHER PLAIN #2		2	2
8	502-001	WASHER, LOCK #2		1	1
9	492-007	NUT, PLAIN, HEX. #2-56		1	1
10	352-216	SPRING EXTENSION .125 OD x 1.00 LG		1	1
11	225-278	TAPE SINGLE SIDED 1/4 WD.x.062THK.X .75 LG		1	1
12	225-353	TAPE DOUBLE SIDED		A/R	A/R



NOTES :

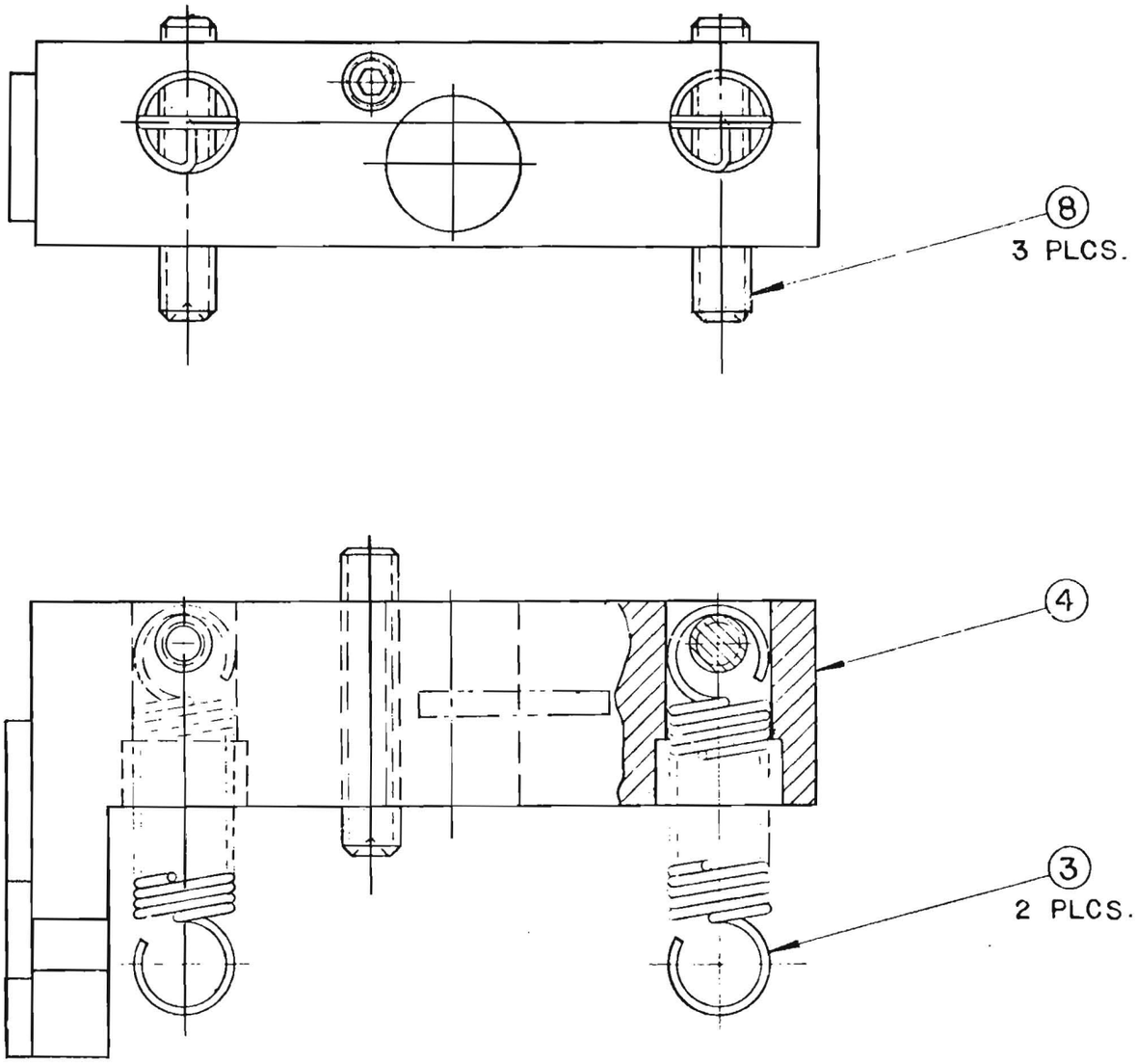
1. PART NO. IS 4041229-02.
2. MARK ASSY NO. PER BDI-1.

Assembly No. 4041229. Head Gate

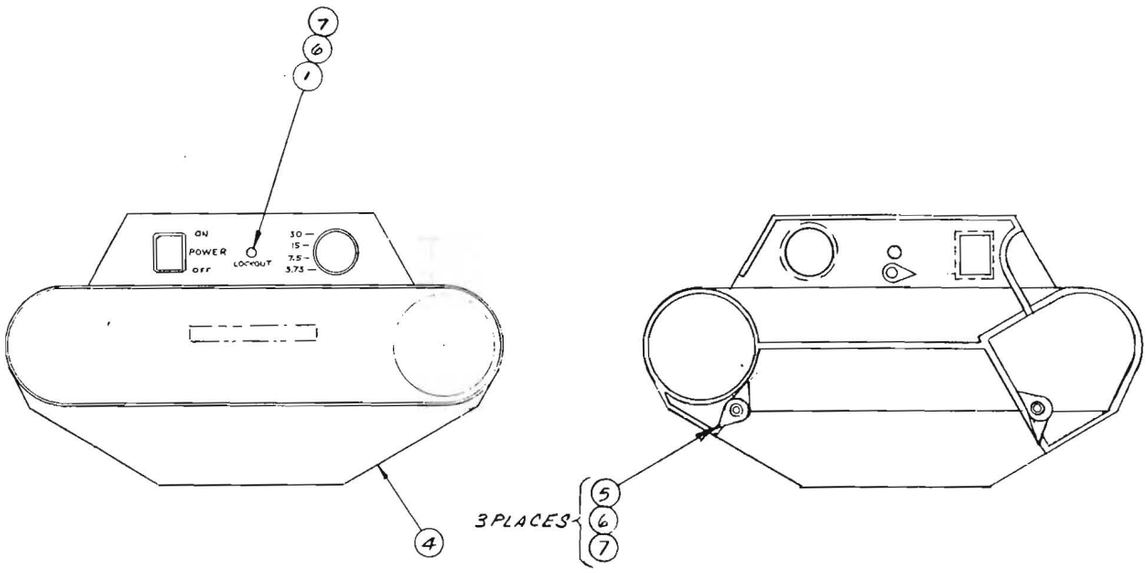
4030411-01 HEAD GATE LATCH ASSEMBLY REV. B

NEXT HIGHER ASSEMBLY 4020434

ITEM NO.	PART NUMBER	D DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	~~4120039-01~~	~~LATCH, HEAD GATE~~		~~1~~
2	~~4260571-01~~	~~SUPPORT, HEAD GATE SPRING & LATCH~~		~~1~~
3	4270271-01	SPRING, EXTENSION, HEAD GATE		2
4	4120039-01	LATCH, HEAD GATE		1
5				
6	~~010-438~~	~~ADHESIVE, LOCTITE SUPER BONDER #05~~		~~A/R~~
7	~~206-280~~	~~PIN, SPRING, 3/64 DIA X .281 LG~~		~~2~~
8	477-143	SCREW, SET #6-32 x .75 LG		3



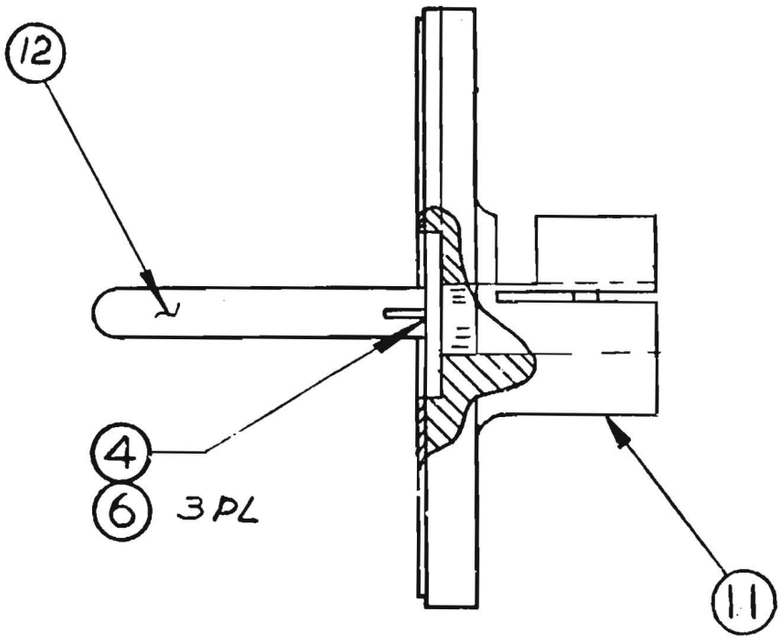
Assembly No. 4030411. Head Gate Latch



-02	-01	ITEM NO.	PART NUMBER	DESCRIPTION
A/R		7	932-044	PLASTIC, LIQUID, EPOXY, HYSOL C9-4210
A/R		6	018-290	PLASTIC, LIQUID, CATALYST, HYSOL H2-3561
3		5	4200089-01	BUSHING, HEAD COVER
1		4	4290964-01	COVER, HEAD, DIE CAST
—	1/2	3	018-438	ADHESIVE, LOCTITE #06
—	1	2	4290940-01	COVER, HEAD
1	1	1	4110301-01	JEWEL, ILLEGAL SPEED INDICATOR

PARTS LIST

Assembly No. 4041256. Head Cover



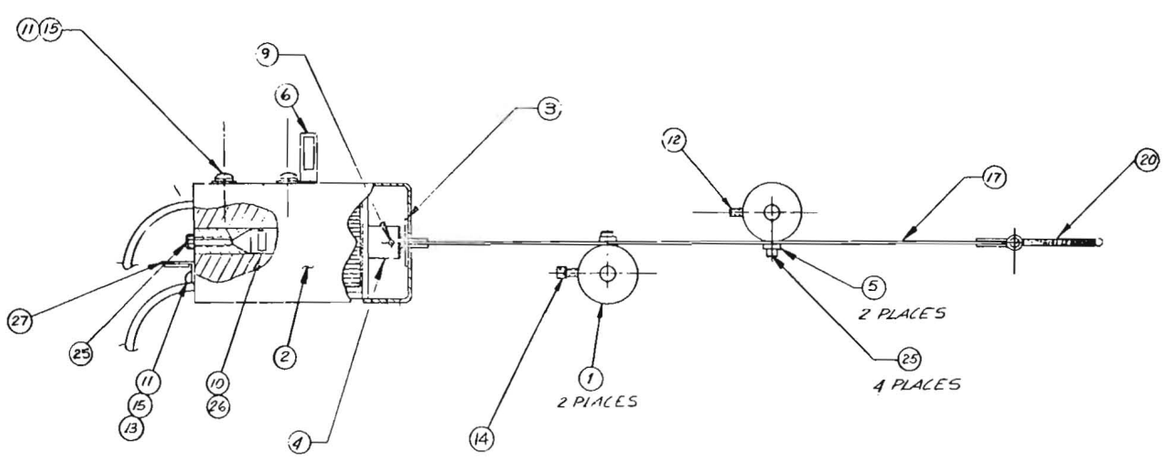
-03	-02	-01	ITEM NO.	PART NUMBER	DESCRIPTION
1			12	4210400-01	SHAFT
1			11	4030421-02	TURNTABLE SUB ASSEMBLY
—	1		10	4030421-01	TURNTABLE SUB. ASSEMBLY
—	1		9	4041281-01	SHAFT ASSEMBLY, REEL DRIVE
—	3		8	470-471	SCREW, CAP, BUTTON HD. #4-40 X .31 LG.
~~—~~	~~—~~	~~2~~	~~7~~	~~502-005~~	~~WASHER LOCK SPLIT #10~~
3	—	3	6	470-382	SCREW CAP BUTTON HEAD #4-40 x .19LG.
—	—	2	5	470-040	SCREW, HEX SOC, #10-32 x .75LG
1	1	1	4	4820128-10	DRIVE, PLATE
~~—~~	~~—~~	~~1~~	~~3~~	~~4250219-01~~	~~TURNTABLE~~
~~—~~	~~—~~	~~1~~	~~2~~	~~4130062-01~~	~~PAD, TURNTABLE~~
—	—	1	1	4041222-01	SHAFT, ASSY, REEL DRIVE.

PARTS LIST

Assembly No. 4030398. Turntable

4030400-02 TAPE LIFTER ASSEMBLY REV. G
NEXT HIGHER ASSEMBLY 4020434

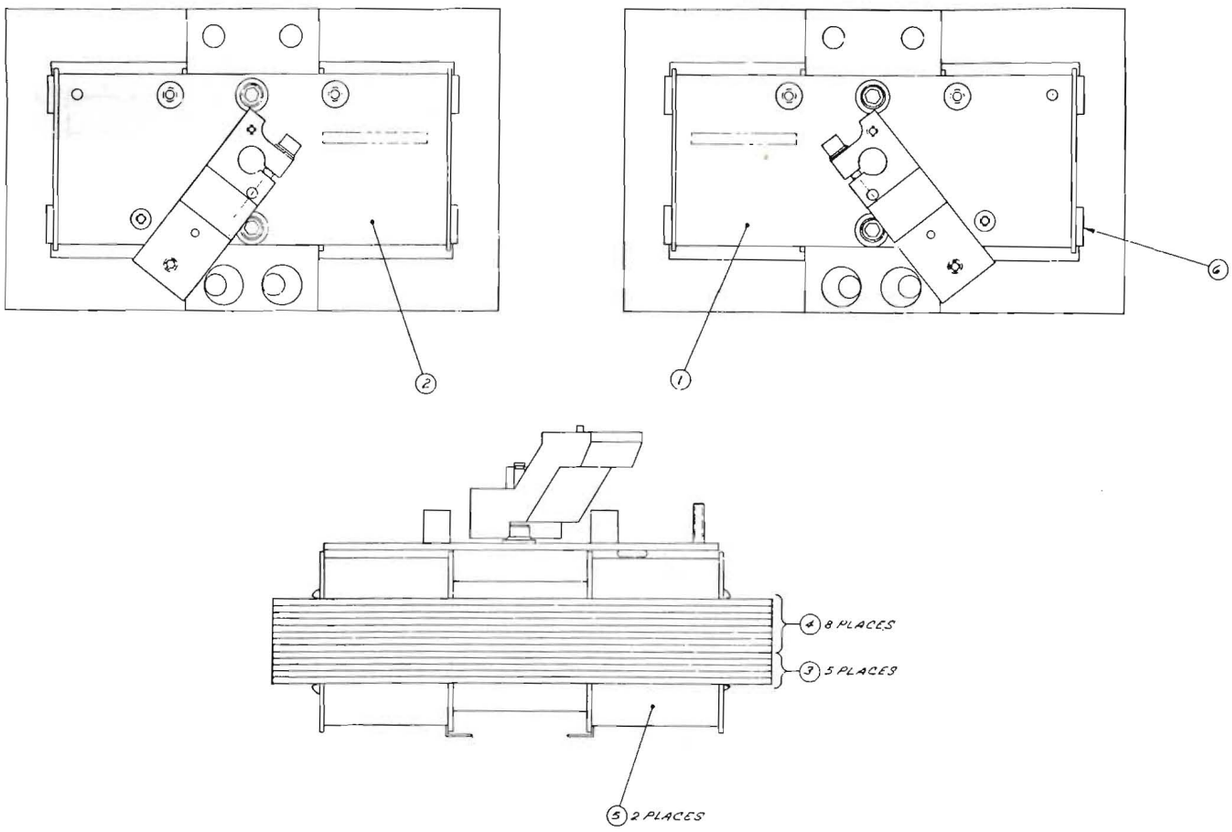
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1	4250092-01		ROLLER, LIFTER		2	2
2	4290899-01		SHIELD, SOLENOID LIFTER		1	1
3	4440319-01		WASHER, CORK COMPOSITION		1	1
4	4590081-01		SOLENOID MOD, LIFTER ASSY.		1	1
5	4600096-01		CLAMP, LIFTER CABLE		2	2
6	4260560-02		BRACKET, TACH INTERCONNECT		1	1
7	~~4310028-01~~		~~O-RING MODIFICATION~~		~~1~~	-
8	172-008		LUG, SOLDER #4		1	1
9	406-013		PIN, SPRING		1	1
10	4310023-01		RING, TAPE LIFTER			1
11	471-891		SCREW, CAP, BUTTON HD. 8-32 x 1/4		2	3
12	477-524		SCREW, SET, CUP POINT 6-32 x 5/16 LG		1	1
13	501-190		WASHER, PLAIN, FLAT #8		1	1
14	470-020		SCREW, CAP, HEX SOC #6-32 X 1/2 LG		1	1
15	502-004		WASHER, LOCK, SPLIT, #8		2	3
16						
17	4050845-01		CABLE ASSY, LIFTER		1	1
18	432-189		O-RING		1	-
19	460-399		RIVET, "POP", .125 DIA., DOME HD.		1	1
20	352-346		SPRING, EXTENSION, 1.25 LG		1	1
21						
22						
23	087-771		LUBRICANT, GREASE, PARKER-O-LUBE		A/R	-
24	~~087-514~~		~~GREASE, MOLYLUBE~~		~~A/R~~	-
25	470-625		SCREW, LOCKING, CAP, HEX SOC. 4-40 x 3/8		5	5
26	087-775		LUBRICANT, STP			A/R
27	180-265		TERMINAL STRIP		1	1



Assembly No. 4030400. Tape Lifter

-AF (SUPPLY)

-AE (TAKE-UP)



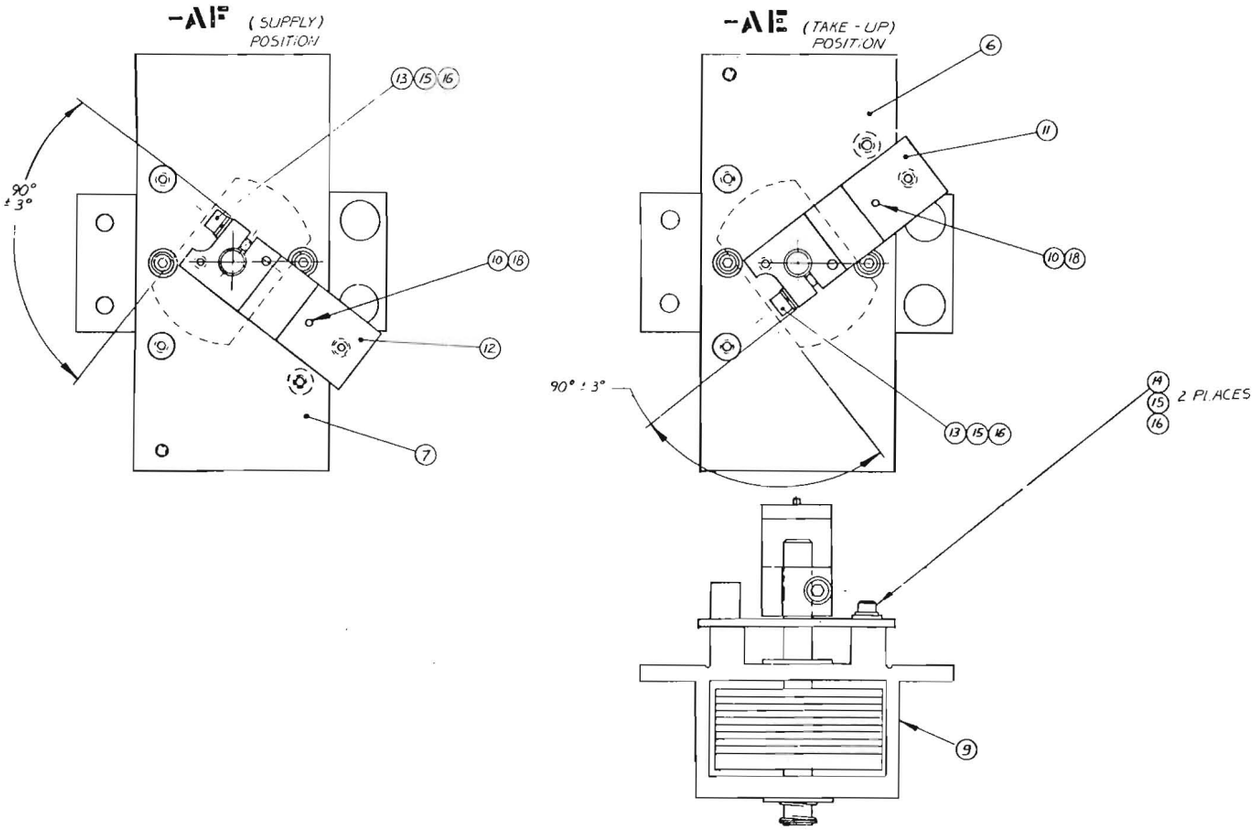
A/R	A/R	6	225-130	TAPE, SINGLE SIDED FOAM .37WD x .15 THK
2	2	5	4590082-01	COIL, SOLENOID
R	8	4	4590079-02	STATOR, SOLENOID
5	5	3	4590078-02	STATOR, SOLENOID
1	-	2	4030397-AF	SOLENOID HOUSING ASSY
-	1	1	4030397-AE	SOLENOID HOUSING ASSY
AF	AE	ITEM NO	PART NUMBER	DESCRIPTION

PARTS LIST

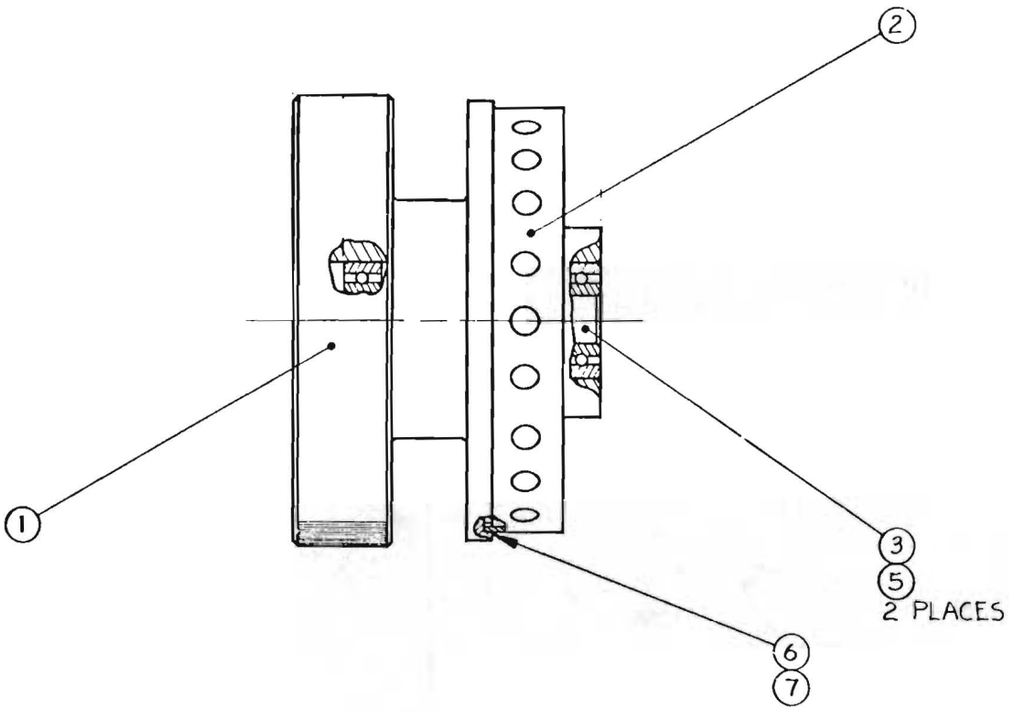
Assembly No. 4030412. Tape Tension Solenoid

4030397-AE TENSION ARM SOLENOID HOUSING ASSEMBLY (TAKEUP) REV. D
4030397-AF TENSION ARM SOLENOID HOUSING ASSEMBLY (SUPPLY)
NEXT HIGHER ASSEMBLY 4030412

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER					
					AA	AB	AC	AD	AE	AF
1	4030391-01		SOLENOID BEARING ASSY		1	1	1	1	-	-
2	4600094-AA		SOLENOID SHIELD		1	-	-	-	-	-
3	4600094-AB		SOLENOID SHIELD		-	1	-	-	-	-
4	4230275-AA		ARM, TAPE TENSION		1	-	1	-	-	-
5	4230275-AB		ARM, TAPE TENSION		-	1	-	1	-	-
6	4600094-AC		SOLENOID SHIELD		-	-	1	-	1	-
7	4600094-AD		SOLENOID SHIELD		-	-	-	1	-	1
8	406-284		PIN, SPRING, .094 DIA X .50 LG		1	1	1	1	-	-
9	4030391-02		SOLENOID BEARING ASSY						1	1
10	402-159		PIN, DOWEL, .062 DIA X .25 LG		1	1	1	1	1	1
11	4230275-AC		ARM, TAPE TENSION						1	-
12	4230275-AD		ARM, TAPE TENSION						-	1
13	470-012		SCREW, CAP, HEX SOC #4-40 X .50 LG						1	1
14	470-010		SCREW, CAP, HEX SOC #4-40 X 3/8 LG		2	2	2	2	2	2
15	501-008		WASHER, FLAT #4		2	2	2	2	3	3
16	502-002		WASHER, LOCK, SPRING #4		2	2	2	2	3	3
17										
18	018-450		ADHESIVE, LOCTITE 290		A/R	A/R	A/R	A/R	A/R	A/R

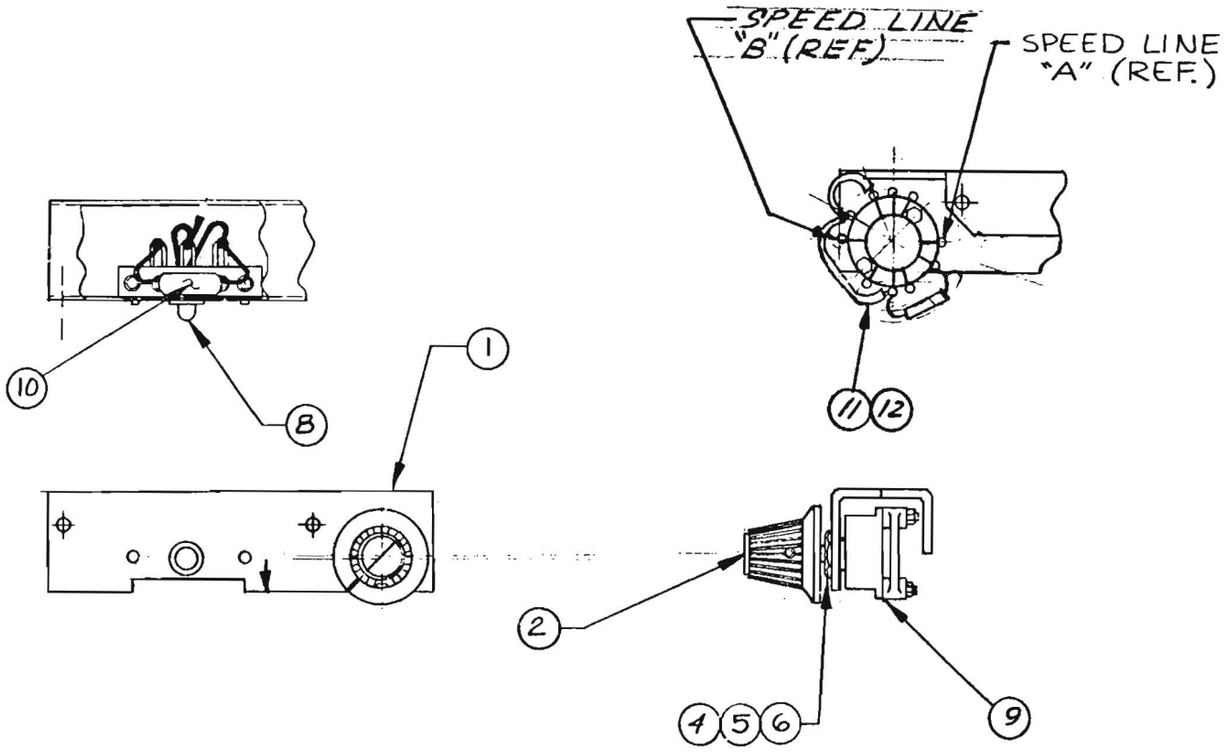


Assembly No. 4030397. Tension Arm Solenoid Housing



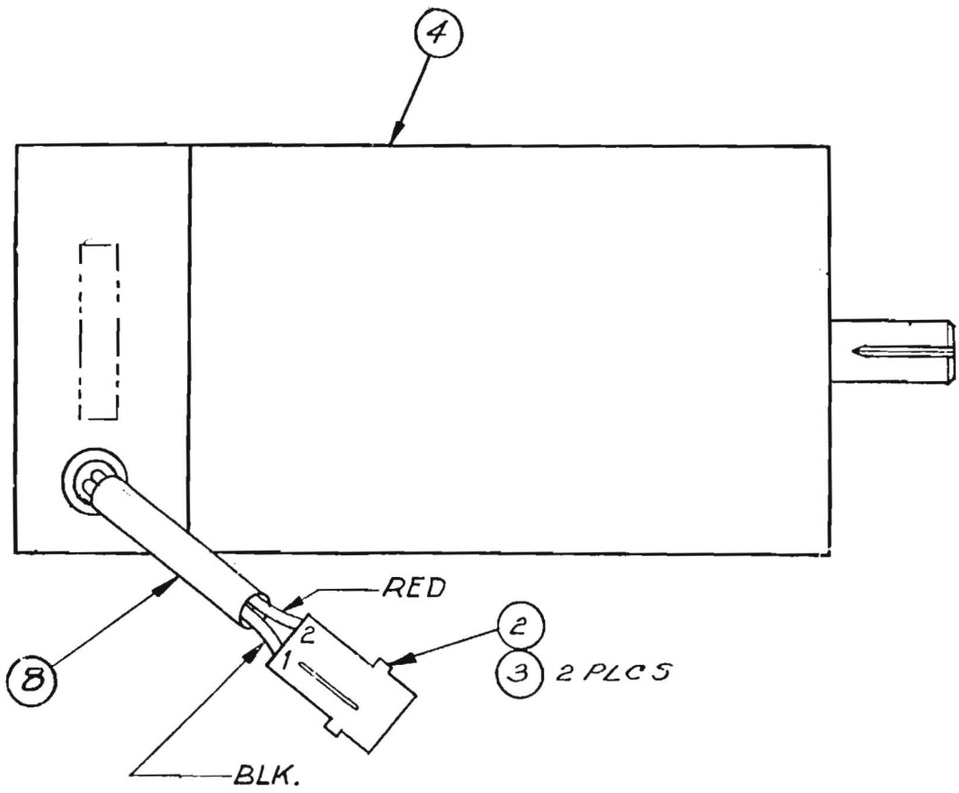
-01	ITEM NO	PART NUMBER	DESCRIPTION
			PARTS LIST
1	1	4250094-01	WHEEL, TAPE TIMER
1	2	4260541-01	BAND, TAPE TIMER
2	3	4200082-01	BEARING, BALL, R-4, ABEC 5
	4		
A/R	5	087-754	GREASE, ANDOK "C"
A/R	6	018-290	PLASTIC, LIQUID, CATALYST, HYSOL H2-3561
A/R	7	932-044	PLASTIC, LIQUID, EPOXY, HYSOL C9-4210

Assembly No. 4041230. Tape Timer Wheel



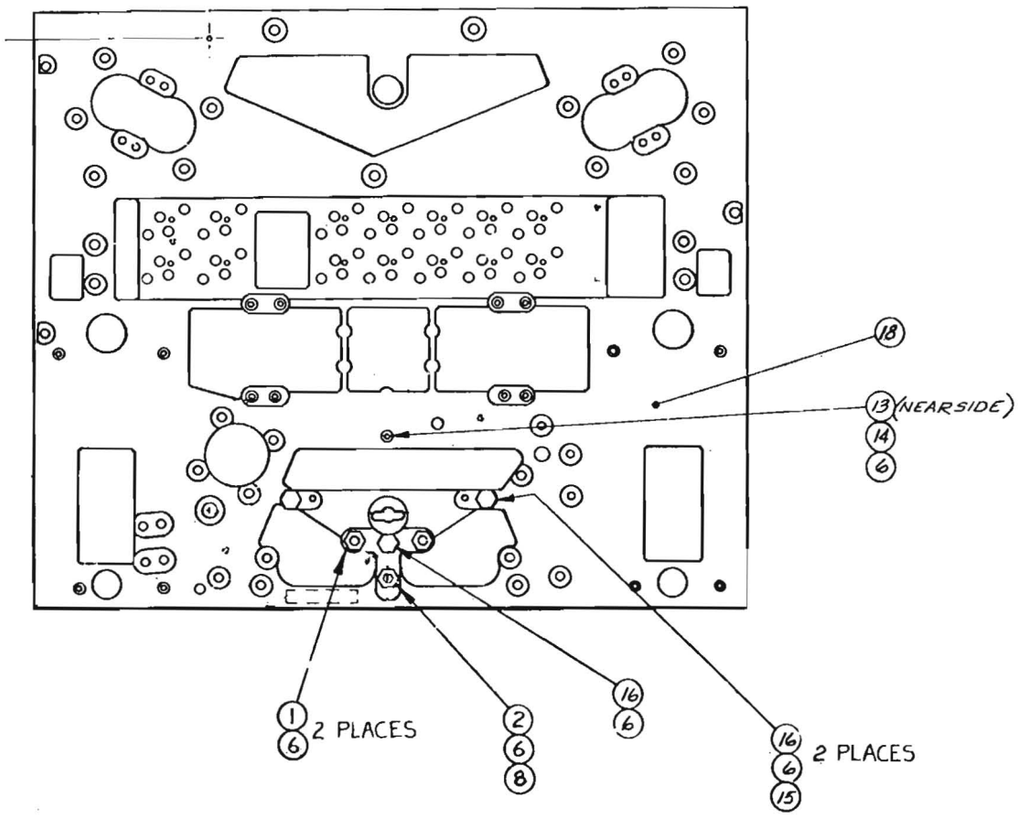
-01	ITEM NO.	PART NUMBER	DESCRIPTION
			PARTS LIST
1	1	42605360 1	BKT, SPEED SWITCH
1	2	6000002-20	SKIRTED KNOB, 1/2" SERIES BLACK
	3		
1	4	492-095	NUT, HEX 3/8-32
1	5	501-627	WASHER FLAT 3/8 ID.
1	6	502-083	WASHER LOCK 3/8 ID, COARSE TOOTH
	7		
1	8	581-440	LED RED (HP 5082-4850) WITH CLIP
1	9	4620088-01	SWITCH, SPEED SELECTOR
1	10	076-004	RESISTOR C.F. 180Ω 5% 1/4W.
A/R	11	615-090	WIRE, BARE #24
A/R	12	600-232	SLEEVING, TEFLON

Assembly No. 4041242. Speed Switch Bracket Assembly



-02	-01	ITEM	PART NUMBER	DESCRIPTION
-	V	1	4590031-01	MOTOR, REEL DRIVE
1	V	2	167-347	CONNECTOR, FEMALE
2	V	3	167-349	CONTACT, PIN
1	-	4	4590031-02	MOTOR, REEL DRIVE
-	-	5	4590031-03	MOTOR, REEL DRIVE
-	-	6	4590031-04	MOTOR, REEL DRIVE
-	-	7	4590031-05	MOTOR, REEL DRIVE
A/R		8	600-052	SLEEVING, PVC, FLEX. BLK., .375 I.D

Assembly No. 4030408. Reel Drive Motor



-01	-02	-03	-04	ITEM NO.	PART NUMBER	DESCRIPTION
1				18	4330364-02	TOP PLATE, TRANSPORT
–	1			17	4330313-05	TOP PLATE TRANSPORT
3	3	–	–	16	4200083-02	INSERT, TRANSPORT
2	2	–	–	15	402-039	PIN, DOWEL, .0626 DIA x .50 LG.
1	1	1	–	14	502-005	WASHER, LOCK, SPRING, #10
1	1	1	–	13	470-039	SCREW, CAP, HEX SOC. HD, #10-32 x .62
–	–	1	–	12	4330313-02	TOP PLATE, TRANSPORT
–	3	3	3	11	408-146	PIN, GROOVED, .094 DIA x .62 LG
1	1	1	1	10	408-239	PIN, SPRING, .187 DIA x 1.75 LG
–	–	2	2	9	406-023	PIN, SPRING, .062 DIA x .50 LG
1	1	1	1	8	4200086-02	INSERT, HEAD GATE BUSHING
~~3~~	~~3~~	~~3~~	~~3~~	7	~~495-009~~	~~INSERT, THREADED, CAL, 10-32, .281G~~
1/16	1/16	1/16	AR	6	018-450	ADHESIVE, LOCTITE #290
–	–	–	1	5	4330313-01	TOP PLATE, TRANSPORT
~~1~~	~~1~~	~~1~~	~~1~~	~~4~~	~~4220320-04~~	~~SPACER, CAPSTAN SENSOR~~
–	–	3	3	3	4200083-01	INSERT, TRANSPORT
1	1	1	1	2	4200080-02	BUSHING, HEAD GATE
2	2	2	2	1	4200079-01	BUSHING, LIFTER

PARTS LIST

Assembly No. 4041241. Top Plate

4050873-01 INDUCTOR BOX ASSEMBLY REV. C
NEXT HIGHER ASSEMBLY 4020434

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4041279-01	BASE ASSY, INDUCTOR BOX		1
2				
3	4290971-01	COVER, INDUCTOR BOX		1
4				
5	4580215-01	INDUCTOR		2
6				
7	167-347	CONNECTOR BODY, FEMALE SHELL, 2 CONTACT	P1,3	2
8	167-348	CONNECTOR BODY, MALE SHELL, 2 CONTACT	P2,4	2
9	167-349	CONNECTOR, PIN, 14-20 AWG		4
10	167-350	CONNECTOR, SOCKET, 14-20 AWG		4
11				
12	172-003	SOLDER LUG #6		1
13	260-086	GROMMET		1
14				
15	476-505	SCREW, SELF TAPPING, 4-40 X .25 LG		4
16	501-009	WASHER, FLAT, #6		4
17	492-034	NUT, PLAIN, SMALL PATTERN		4
18	502-003	WASHER, SPRING LOCK #6		4
19	600-237	TUBING TEFLON, CLEAR, .053 ID		AR
20	616-395	CABLE, 18 AWG, 2 COND, SHIELDED		AR
21	600-092	SLEEVING SHRINKABLE BLK .250 I.D.		AR
22		WIRE, PVC, 18 GA		AR

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER				
				-01	-02	-03	-04	-05
1				1	1	1	1	
2	4840423	TRANSPORT INTERCONNECT			B	B	C	E
3								
4	013-878	DIODE, SWITCHING, FAST RECOVERY		4	4	4	4	4
5								
6								
7								
8								
9	167-502	CONNECTOR, BODY, FEMALE SHELL, 12 CONTACT		1	1	1	1	1
10	167-028	CONNECTOR, BODY, FEMALE SHELL, 36 CONTACT		1	1	1	1	1
11	166-226	CONTACT, PIN, 24-26 AWG		24	24	24	24	24
12	166-200	CONTACT, PIN, 20-22 AWG		15	15	15	15	15
13	166-227	CONTACT, PIN, 16-18 AWG		27	20	29	29	29
14	166-225	CONTACT, SOCKET 16-18 AWG				2	2	2
15	167-348	CONNECTOR, BODY, MALE SHELL, 2 CONTACT		3	4	3	3	3
16	167-350	CONTACT, SOCKET, 14-20 AWG		6	8	6	6	6
17	167-451	CONNECTOR BODY, MALE SHELL, 3 POS				1	1	1
18								
19	180-021	TERMINAL STRIP, 3 POSITION, A1, G, A1		1	1	1	1	1
20								
21	302-540	STRAP, CABLE, 4.0 LG			A/R	A/R	A/R	A/R
22	302-335	TIE STRAP (SMALL)		A/R	A/R	A/R	A/R	A/R
23	302-379	TIE STRAP (LARGE)		A/R	A/R	A/R	A/R	A/R
24	580-510	SOCKET, TO-3		10	10	10	10	10
25	600-009	SLEEVING, PVC., .208 ID, BLK			A/R	A/R	A/R	A/R
26	600-092	SLEEVING, SHRINKABLE, BLACK .250		A/R	A/R	A/R	A/R	A/R
27	600-095	SLEEVING, SHRINKABLE, BLACK .500		A/R	A/R	A/R	A/R	A/R
28	600-514	SLEEVING, SHRINKABLE, BLACK 1.500		A/R	A/R	A/R	A/R	A/R
29	600-236	SLEEVING, TEFLON, .047 ID, NAT.			A/R	A/R	A/R	A/R
30								
31		WIRE, PVC, 18 AWG		A/R	A/R	A/R	A/R	A/R
32		WIRE, PVC, 20 AWG		A/R	A/R	A/R	A/R	A/R
33		WIRE, PVC, 24 AWG		A/R	A/R	A/R	A/R	A/R
34	600-127	SLEEVING, SHRINKABLE, .063 EXP I.D. CLEAR						A/R
35	600-153	SLEEVING, SHRINKABLE, .125 EXP I.D. BLACK						A/R
36	614-931	CABLE, COAXIAL, #24 AWG WHT-BRN		A/R	A/R	A/R	A/R	A/R
37	614-932	CABLE, COAXIAL, #24 AWG WHT-RED		A/R	A/R	A/R	A/R	A/R

AMPEX	Ampex Corporation, Redwood City, California	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4050814 SHEET 2 of 5	N

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05
38	614-933	CABLE,COAXIAL, #24 AWG WHT-ORN		A/R	A/R	A/R	A/R	A/R
39	614-934	CABLE,COAXIAL, #24 AWG WHT-YEL		A/R	A/R	A/R	A/R	A/R
40								
41								
42	616-284	CABLE,22 AWG, 3 COND, SHIELDED		A/R	A/R	A/R	A/R	-
43	616-395	CABLE,18 AWG, 2 COND, SHIELDED		A/R	A/R	A/R	A/R	A/R
44	616-404	CABLE,18 AWG, 3 COND, SHIELDED		A/R	A/R	A/R	A/R	A/R

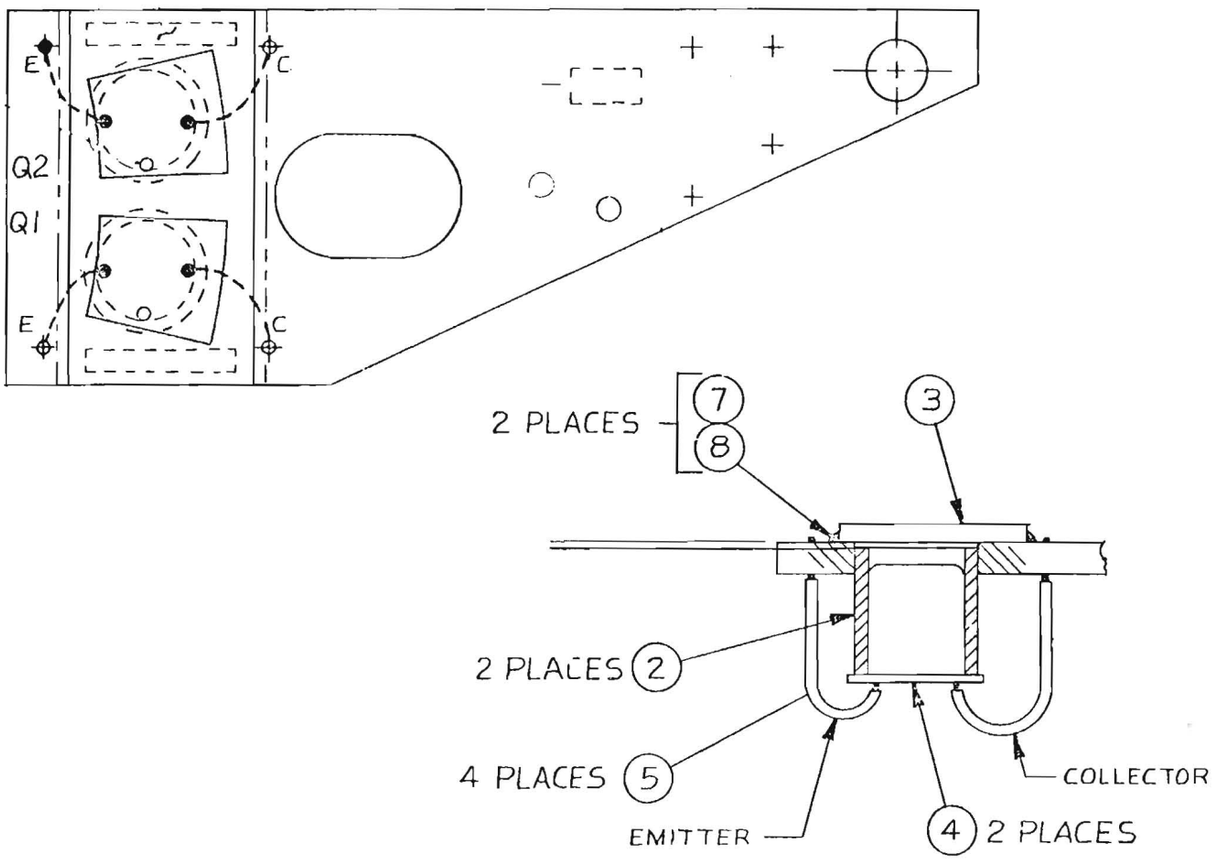
4050815-01 TRANSPORT TO POWER SUPPLY HARNESS ASSEMBLY REV. E
NEXT HIGHER ASSEMBLY 4020434

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1				
2				
3				
4	167-024	CONNECTOR,BODY,FEMALE SHELL , 12 CONTACT		1
5	166-226	CONTACT, PIN, 24 - 26 AWG		3
6	166-200	CONTACT, PIN, 20 - 22 AWG		4
7	166-227	CONTACT, PIN, 16 - 18 AWG		2
8				
9				
10	302-335	TIE STRAP		A/R
11	~~302-379~~	~~TIE STRAP~~		~~A/R~~
12				
13				
14	580-510	SOCKET,TRANSITOR,POWER TO-3		3
15				
16				
17	611-504	WIRE,PVC,24 AWG WHT-GRN		A/R
18	611-538	WIRE,PVC,18 AWG GRN		A/R
19	611-555	WIRE,PVC,18 AWG WHT-GRY		A/R
20	614-849	WIRE,PVC,24 AWG WHT-ORN		A/R
21	614-874	WIRE,PVC,24 AWG WHT-YEL		A/R
22	617-051	WIRE,PVC,20 AWG ORN		A/R
23	617-052	WIRE,PVC,20 AWG YEL		A/R
24	617-058	WIRE,PVC,20 AWG WHT-RED		A/R
25	617-062	WIRE,PVC,20 AWG WHT-BLU		A/R
26				
27				
28	600-095	SLEEVING,SHRINKABLE, BLK, 1/2"		A/R

4050818-01 TACHOMETERS NO. 2 HARNESS ASSEMBLY REV. F

NEXT HIGHER ASSEMBLY 4020434

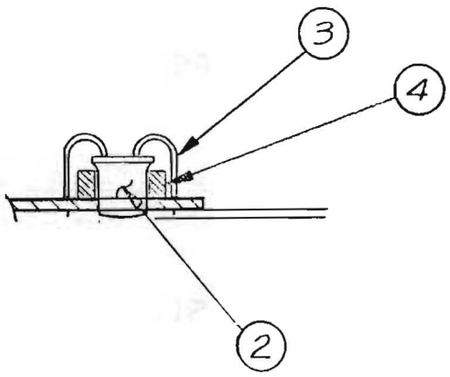
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4700474-01	CABLE,2 COND SHIELDED & JACKETED, 26 AWG		A/R
2				
3				
4	167-025	CONNECTOR,BODY,MALE SHELL, 12 CONTACT	J16	1
5	166-226	CONTACT,PIN,24-26 AWG		8
6	166-227	CONTACT,PIN,16-18 AWG		3
7				
8				
9	302-379	TIE STRAP		A/R
10				
11				
12	600-092	SLEEVING,SHRINKABLE,BLACK .250		A/R
13	600-095	SLEEVING,SHRINKABLE,BLACK .500		A/R
14				
15				
16	614-847	WIRE,PVC,24 AWG,WHT-BRN		A/R
17	614-848	WIRE,PVC,24 AWG,WHT-RED		A/R



A/R	A/R	8	932-044	PLASTIC, LIQUID RESIN
A/R	A/R	7	018-290	PLASTIC, LIQUID CATALYST
A/R	A/R	6	018-019	ADHESIVE, CYANOCRYLATE LIQUID
A/R	A/R	5	600-296	SLEEVING, PVC CLEAR, .027 I.D.
2	2	4	014-942	TRANSISTOR, PHOTO (MRD-300)
1	1	3	4250214-01	GRATING, ENCODER
2	2	2	4250097-01	TUBE, CAPSTAN SENSOR
	1	1		
-02	-01	ITEM NO.	PART NUMBER	DESCRIPTION

PARTS LIST

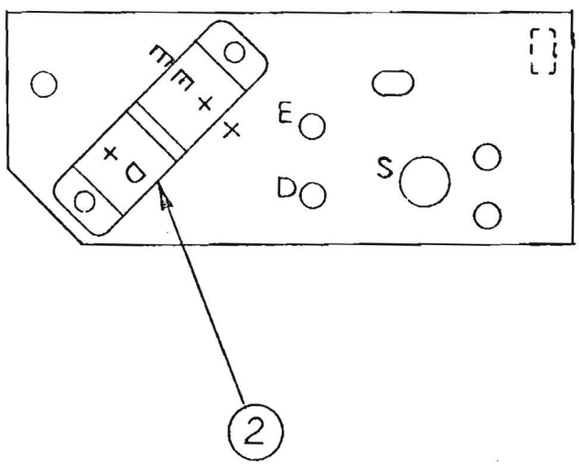
Assembly No. 4050832. Capstan Tachometer Sensor PWA



2	4	502-446	WASHER, TEFLON		
AR	3	600-296	SLEEVING, PVC CLEAR		
2	2	581-559	DIODE, LIGHT EMITTING. (TIL 31)		
01	ITEM NO	PART NUMBER		DESCRIPTION	

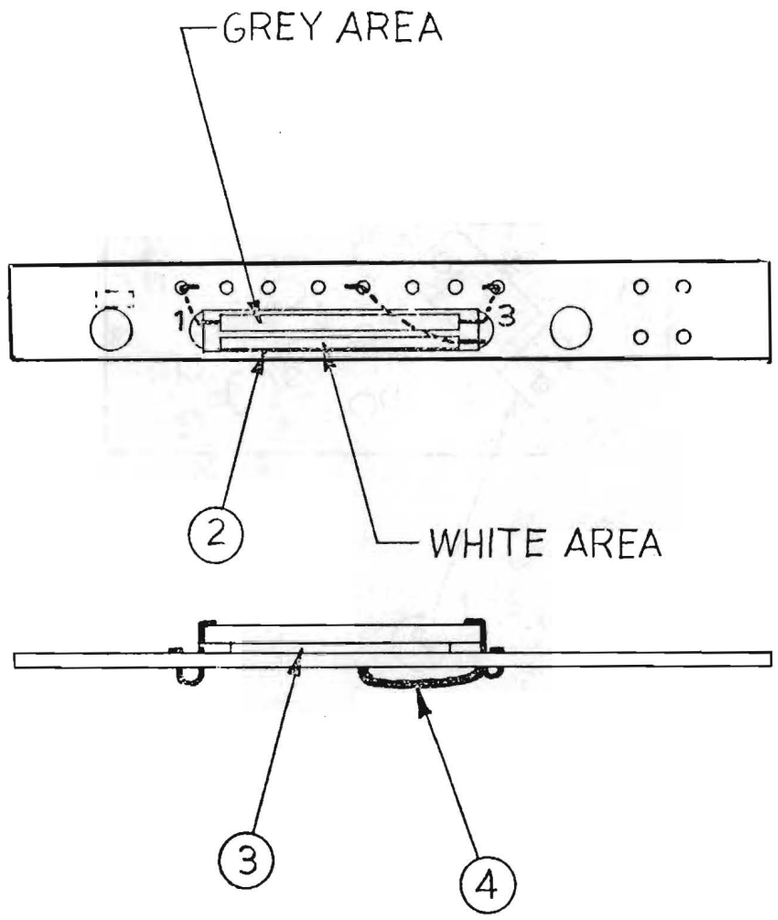
PARTS LIST

Assembly No. 4050862. Capstan Tachometer LED PWA



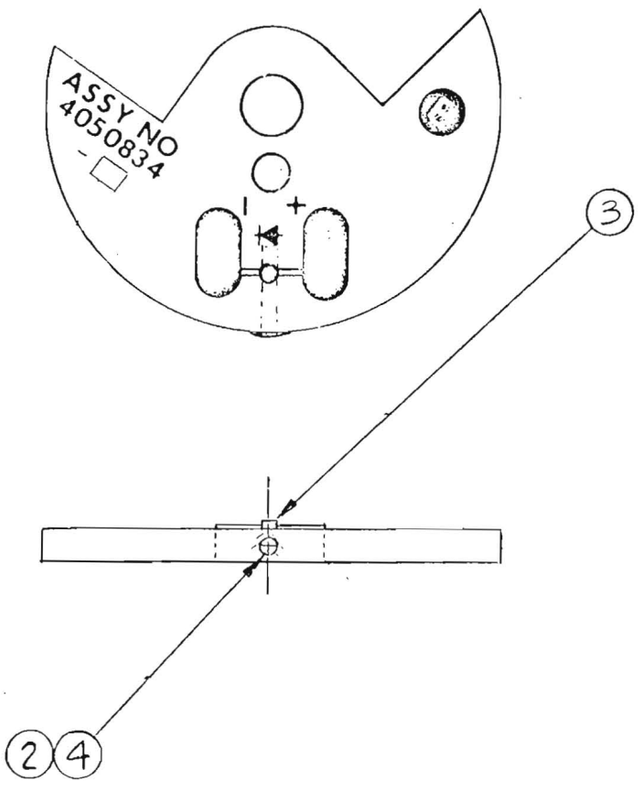
1	2	581-337	TRANSDUCER, (H13BI)	
	1			
-01	ITEM NO.	PART NUMBER		DESCRIPTION
		PARTS LIST		

Assembly No. 4050836. Timer Tachometer PWA



A/R	4	600-296	SLEEVING, PVC CLEAR, .027 I.D.	
A/R	3	255-361	TAPE, FOAM	
1	2	058-978	POTENTIOMATIC, (MPC 1051)	
-01	ITEM NO.	PART NUMBER		DESCRIPTION
		PARTS LIST		

Assembly No. 4050835. Tension Transducer Sensor PWA



			6		
			5		
A/R	A/R	A/R	4	922-562	PLASTIC, ROUND, ACRYLIC, CLEAR, .062 DIA
1			3	581-131	LED, RED (MV50) CR1
A/R	A/R	A/R	2	087-614	ADHESIVE, BASE, SILICONE
			1		
03	02	01	ITEM NO.	PART NUMBER	DESCRIPTION

PARTS LIST

Assembly No. 4050834. Tension Transducer LED PWA

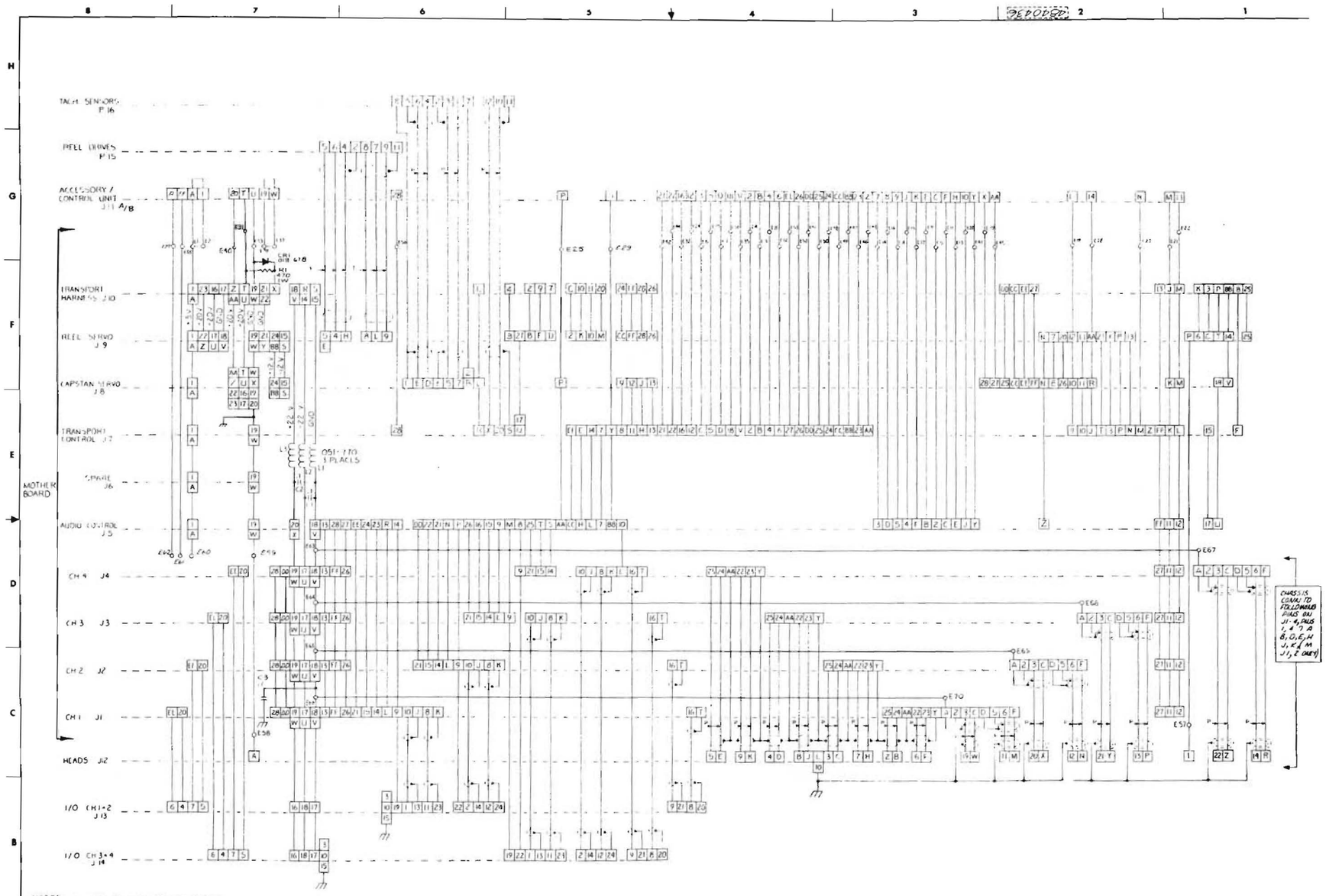
4020435-01 ELECTRONICS CHASSIS ASSEMBLY REV. E
NEXT HIGHER ASSEMBLY 4020434

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4050861-01	PWA, MOTHER BOARD		1
2				
3				
4				
5	4050817-01	HARNESS, TACHOMETERS #1		1
6	4050819-01	HARNESS, REEL DRIVE		1
7	4050820-01	HARNESS, CONTROL/ACCESSORY		1
8	4050823-01	HARNESS, INPUT/OUTPUT		1
9	4050824-02	HEAD CONNECTOR & CABLE ASSY	1	1
10				
11	4041257-01	REAR PANEL ASSY, ELECTRONICS		1
12	~~4050858-01~~	~~GROUND STRAP~~		
13				
14	4170342-01	LABEL, HEAD & PWA WARNING		1
15	4290887-03	CHASSIS, ELECTRONICS		1
16	4290915-01	COVER, ELECTRONICS, FRONT		1
17				
18				
19	4840436	WIRING DIAGRAM		8
20				
21				
22	030-145	CAPACITOR, CER MONO, 0.1 μF, 50V, 20%	C3	1
23	~~171-016~~	~~LUG, CRIMP #10~~		~~1~~
24	471-061	SCREW, PAN HEAD 4-40 X 5/16		13
25	471-065	SCREW, PAN HEAD 4-40 X 5/8		9
26	171-160	LUG, CRIMP		1
27	172-004	SOLDER LUG, #4		1
28				
29	260-058	GROMMET, PLASTIC, CAT TRACK (6")		A/R
30	269-999	CORK COMPOSITION STRIP .62 WD X .12 THK		A/R
31	302-335	STRAP, CABLE .09 WD X 4.0 LG		4
32	302-379	STRAP, CABLE, .14 WD X 5.4 LG		A/R
33				
34	310-991	LATCH PART, PLUNGER		1
35	310-992	LATCH PART, GROMMET		1
36				
37				

AMPEX	Ampex Corporation Redwood City, California	CODE IDENT NO. 92732	LIST OF MATERIALS	LM-4020435 SHEET 2	E

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
38	421-374	BEARING, SLEEVE .379 ID X .56 OD		4
39	470-440	SCREW, FLAT HEAD, HEX SOC, 4-40 X 3/8 LG		2
40	496-004	NUT, ASSEM WASHER 4-40		4
41	476-998	SCREW, SELF TAPPING, #6		2
42	600-009	SLEEVING, BLACK, .208 I.D.		A/R
43	501-008	WASHER, FLAT #4		23
44	502-002	WASHER, SPRING LOCK #4		20
45	502-013	WASHER, EXTERNAL TOOTH #4		1
46	530-361	GUIDE, P.C. (RICHCO - PGG-3 7 1/2 LG)		18
47	~~600-132~~	~~SLEEVING, SHRINKABLE, CLR, .187~~		~~A/R~~
48	501-169	WASHER; PLATN #4 .125 I.D .250 OD		1
49	618-001	BRAID, FLAT, .25 WIDE		A/R
50	618-019	BRAID, FLAT, .75 WIDE		A/R
51				
52	470-018	SCREW, CAP, HEX SOCKET, 6-32 X 3/8 LG		3
53	502-025	WASHER, LOCK, INT TOOTH #6		3
54	~~496-004~~	~~NUT, WITH ASSEMBLED WASHER, #4~~		~~1~~
55	600-056	TUBING, PVC, 5/8"		A/R
56	600-232	SLEEVING, TEFLON		A/R
57				
58				
59				
60	6000035-01	LABEL, I.D. & SER NO.		1

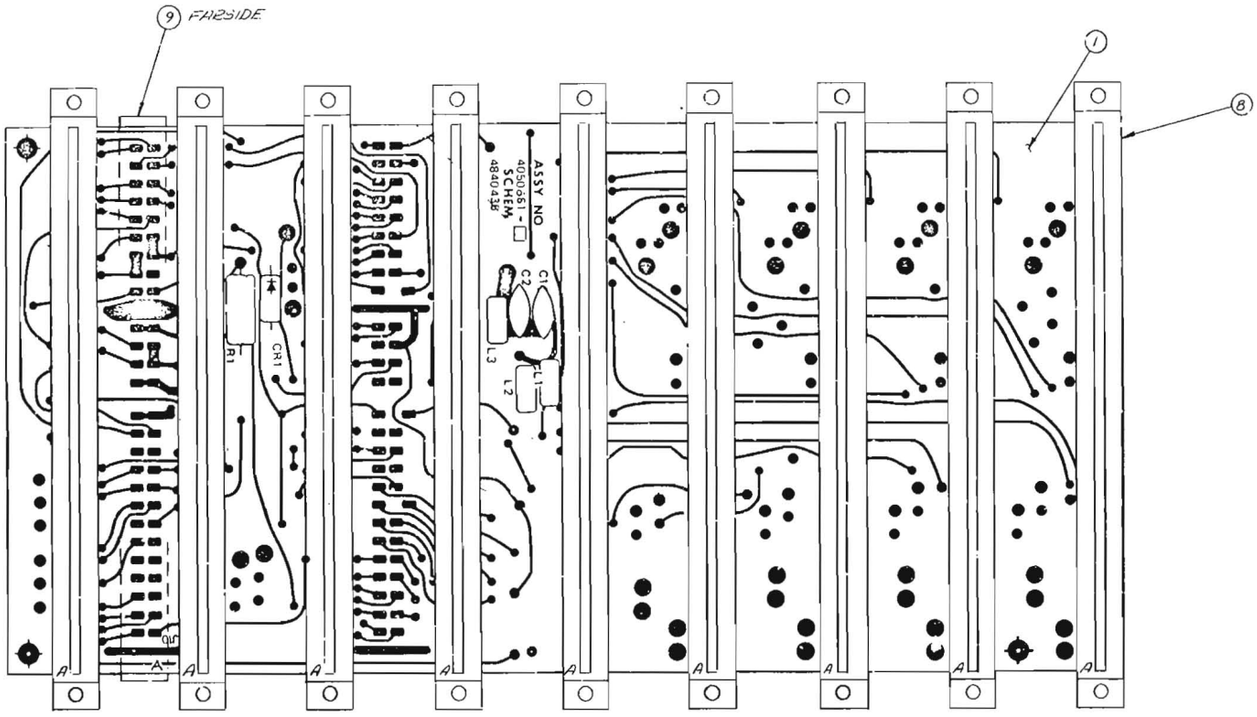
NOTE: 1 PROTECT HEAD CONNECTOR FROM DAMAGE AFTER ASSEMBLY TO ELECTRONICS ASSY.



NOTES: UNLESS OTHERWISE SPECIFIED

1. RESISTANCE VALUES ARE IN OHMS, 5%
2. CAPACITANCE VALUES ARE IN MICROFARADS, 50V.

Wiring Diagram No. 4840436C.
Electronics Wiring Diagram



NOTES:

1. ASSEMBLY NO. IS 4050861-01
2. MARK DASH NO. PER BD1-1.

1	9	139-844	CONNECTOR, PC, 56 PIN	J10
9	8	139-841	CONNECTOR, PC, 56 PIN	J1-J9
2	7	030-145	CAPACITOR, CER. MONO, 0.1UF, 50V, 20%C1, 2	
3	6	051-770	FERRITE CHOKE	L1-3
1	5	068-C25	INDUCTOR, 100μH, 5%	L4
1	4	041-K41	RESISTOR, COMP, 470Ω, 1W, 5%, R1	
1	3	013-678	DIODE, SI, 1AMP	CR1
B	2	4840436	SCHEMATIC	
	1			
-01	ITEM NO	PART NUMBER	DESCRIPTION	

PARTS LIST

Assembly No. 4050861. Motherboard PWA

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4700474-01	CABLE,SHIELDED & JACKETED, 26 AWG		A/R
2				
3				
4	167-024	CONNECTOR,BODY,FEMALE SHELL, 12 CONTACT	P16	1
5	166-224	CONTACT,SOCKET,24-26 AWG		8
6	166-225	CONTACT,SOCKET,16-18 AWG		3
7				
8				
9	302-379	TIE STRAP		A/R
10				
11				
12	~~690-092~~	~~SLEEVING,SHRINKABLE, BLK .250~~		~~A/R~~
13	~~690-095~~	~~SLEEVING,SHRINKABLE, BLK .500~~		~~A/R~~
14		SLEEVING, SHRINKABLE		A/R
15				
16	614-847	WIRE,PVC,24 AWG, WHT-BRN		A/R
17	614-848	WIRE,PVC,24 AWG, WHT-RED		A/R

ITEM NO.	PART NUMBER		DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01									
1														
2														
3	167-501		CONNECTOR, BODY, MALE SHELL, 12 CONTACT P15		1									
4	166-199		CONTACT, SOCKET 20 - 22 AWG		8									
5	302-335		TIE STRAP		A/R									
6														
7	600-092		SLEEVING, SHRINKABLE, BLK.,.250		A/R									
8	600-093		SLEEVING, SHRINKABLE, .375 EXP. I.D. BLK		A/R									
9	616-284		CABLE, 3 COND, SHIELDED, 22 AWG		A/R									
10	600-234		SLEEVING, TEFLON .034 I.D. NAT		A/R									

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1				
2	4290926-01	BOX, INPUT/OUTPUT CONNECTOR		1
3				
4				
5	145-079	CONNECTOR, RECEPTACLE, 24 PIN	J13,14	2
6	172-004	SOLDER LUG, #4		2
7	260-052	GROMMET, PLASTIC, CAT TRACK		A/R
8	302-335	TIE WRAP		A/R
9				
10	470-002	SCREW,CAP., 2-56 X 1/4		4
11	470-008	SCREW,CAP., 4-40 X 1/4		1
12				
13	492-008	NUT,PLAIN,HEX, 4-40		1
14				
15	502-001	WASHER,SPRING LOCK, #2		4
16				
17		WIRE,PVC, 24 AWG		A/R
18		WIRE,PVC, 22 AWG		A/R
19				
20	616-282	CABLE,SHIELDED AND JACKETED #26 AWG		A/R
21				
22				
23				
24		SLEEVING,SHRINKABLE,BLACK,		A/R
25	~~600-097~~	~~SLEEVING,SHRINKABLE,BLACK, .750~~		~~A/R~~
26	600-161	SLEEVING,TEFLON		A/R
27	~~600-914~~	~~SLEEVING,SHRINKABLE,BLACK, 1.50~~		~~A/R~~

4050824-02 HEAD CONNECTOR AND CABLE ASSEMBLY REV. K
NEXT HIGHER ASSEMBLY 4020435

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1	4170333-01	INSULATOR, ELECT. HEAD CONN.		1	1
2	4160564-01	BRACKET, CONNECTOR GROUNDING		1	1
3	4290903-02	COVER, SHIELD			1
4	4290903-01	COVER, SHIELD		1	-
5	4600091-01	SHIELD, HEAD CABLE		1	1
6	47D0473-01	CABLE, 2-CONDUCTOR, DOUBLE SHIELDED		A/R	A/R
7	140-189	CONNECTOR, 22 PIN		1	1
8					
9	302-379	TIE STRAP		A/R	A/R
10	600-090	SLEEVING,PVC,SHRINKABLE .187		A/R	A/R
11	600-092	SLEEVING,PVC,SHRINKABLE .250		A/R	A/R
12	600-131	SLEEVING,PVC,SHRINKABLE .125		A/R	A/R
13	600-132	SLEEVING,PVC,SHRINKABLE .187		A/R	A/R
14	600-514	SLEEVING,PVC,SHRINKABLE,1.50		A/R	A/R
15					
16					
17	611-208	CABLE,SINGLE CONDUCTOR, #24 BLK.		A/R	A/R
18	611-209	CABLE,SINGLE CONDUCTOR, #24 BRN.		A/R	A/R
19					
20					
21	4700474-01	CABLE,2-CONDUCTOR, 26 AWG, SHIELDED		A/R	A/R
22					
23	618-011	BRAID,FLAT, .125WD		A/R	A/R
24	618-019	BRAID, FLAT, .750 WIDE			A/R
25	470-008	SCREW, CAP, HEX, SOCKET #4-40 X $\frac{1}{4}$		4	4
26	470-678	SCREW, CAP, SOCKET, HD, #4-40 X .43 LG LOCKING		2	2
27					
28					
29	502-002	WASHER, LOCK, SPRING #4		2	2
30	502-024	WASHER, LOCK, INT #4		2	2
31	501-169	WASHER, PLAIN, FLAT #4, SM. PATT		4	4
32	[illegible]	WASHER, PLAIN, FLAT #4		[illegible]	[illegible]

4050754-14 MAIN AUDIO PWA, NO. 1-4 REV. V
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -10	-11	-12	-13	-14
1				-	-	-	-	
2	4290857-01	HEAT SINK		4	4	4	4	4
3	4600097-01	SHIELD, AUDIO		1	1	1	1	1
4	4840378	SCHEMATIC		L	M	N	P	R
5				-	-	-	-	
6				-	-	-	-	
7	013-166	DIODE, ZENER, 3.3V, 5%, 400MW, CD32 (1N746A)	VR5		1	1	1	1
8	013-332	DIODE, ZENER, 4.7V, 5%, 400MW, CD32 (1N750A)	VR1	1	1	1	1	1
9	013-450	DIODE, ZENER, 10V, 5%, 400MW, CD32 (1N961B)	VR3,4	2	2	2	2	2
10	013-703	DIODE, ZENER, 20V, 5%, 400MW, CD32 (1N968B)	VR2	1	1	1	1	1
11	013-599	DIODE, CD458	CR1-12,14,17,18	-	-	-	-	-
12	013-678	DIODE, CD451	CR13,19	-	-	-	-	-
13	013-689	DIODE, (CD6016)	CR15-CR16	2	2	2	2	2
14	013-599	DIODE, CD458	CR1-12,14,17,18,20	-	-	-	-	-
15	014-631	TRANSISTOR, PNP, DUAL LO NOISE CD515 (2N3536)	Q1	1	1	1	1	1
16	014-652	TRANSISTOR, PNP CD524 (2N3906)	Q6,8,14	3	3	3	3	3
17	014-653	TRANSISTOR, NPN CD525 (2N3904)	Q7,10,11,15-17	6	6	6	6	6
18	580-304	TRANSISTOR, FET P1087E	Q2,3,9	3	3	3	-	-
19	580-760	TRANSISTOR, PWR, NPN D44C9	Q12,18	2	2	2	2	-
20	580-761	TRANSISTOR, PWR, PNP D45C9	Q13,19	2	2	2	2	-
21	580-646	TRANSISTOR, LOW NOISE CD701 [1]		2	2	2	2	-
22	013-599	DIODE, CD458 (1N4531) CR2,20		20	20	20	-	2
23				-	-	-	-	
24	014-914	PAD, MOUNTING 8-PIN	REF:A1-6,9,10,Q1	9	9	9	9	9
25	280-130	PAD, TRANSISTOR,	REF: Q2-5,9	5	5	5	5	5
26				-	-	-	-	
27	579-006	TRANSISTOR NPN(D44C11)	Q12,18	-	-	-	-	2
28	020-829	RELAY, REED, 12V	K1,2	2	2	2	2	2
29	034-215	CAPACITOR, MICA, 10PF, ±.5PF, 500V	C4,15,25,34,35,75			5	6	6
30	034-156	CAPACITOR, MICA, 5PF, ±.5PF, 500V	C57,74	-	2	-	-	-
31	034-156	CAPACITOR, MICA, 5PF, ±.5PF, 500V	C57	1	-	1	-	1
32	034-215	CAPACITOR, MICA, 10PF, ±.5PF, 500V	C4,15,25,34,35	5	5	-	-	-
33	034-963	CAPACITOR, MICA, 15PF, 5%, 500V	C21,23	2	2	2	2	2
34	034-180	CAPACITOR, MICA, 39PF, 5%, 500V	C9	1	1	1	-	1
35	034-181	CAPACITOR, MICA, 47PF, 5%, 500V	C11,24	2	2	2	2	2
36	034-940	CAPACITOR, MICA, 82PF, 5%, 500V	C5	1	1	1	-	1
37	037-970	CAPACITOR, TANT, DIPPED 150UF, 6V	C7,31	2	2	2	2	2

AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO 92739 | LIST OF MATERIALS | LM-4050754 SHEET 2 | REV V

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -10	-11	-12	-13	-14
38	034-283	CAPACITOR, MICA, 820 pF, 5%, 300V	C67	1	1	1	1	1
39	056-291	CAPACITOR, MICA, 470 pF, 1%, 500V	C29	1	1	1	1	1
40	034-222	CAPACITOR, MICA, 100 pF, 1%, 500V	C55	1	1	1	1	1
41	034-319	CAPACITOR, MICA, 270 pF, 5%, 500V	C3	1	1	1	1	1
42	034-228	CAPACITOR, MICA, 620 pF, 5% 300V	C12	1	1	1	1	1
43	034-283	CAPACITOR, MICA, 820 pF, 5%, 300V	C29,67	-	-	-	-	-
44	034-363	CAPACITOR, MICA, 2000 pF, 1%, 500V	C71	1	1	1	1	1
45	034-730	CAPACITOR, MICA, 1800 pF, 1%, 500V	C45	1	1	1	1	1
46	037-812	CAPACITOR, TANT, DIPPED, 10UF, 25V, 20%	C13,37,47,50	4	4	4	4	4
47	037-740	CAPACITOR, TANT, TUBULAR, 33UF, 10V, 10%	C52	1	1	1	1	1
48	037-219	CAPACITOR, TANT, TUBULAR, 6.8uF, 35V, 10%	C52	-	-	-	-	-
49	037-745	CAPACITOR, TANT, TUBULAR, 47uF, 6V, 10%	C6	-	-	-	-	-
50	037-745	CAPACITOR, TANT, TUBULAR, 47uF, 10%, 6V	C6,31	-	-	-	-	-
51	037-933	CAPACITOR, TANT, DIPPED, 10uF, 35V, 20%	C13	-	-	-	-	-
52	037-931	CAPACITOR, TANT, DIPPED, 6.8uF, 35V, 20%	C48,51	2	2	2	2	2
53	037-812	CAPACITOR, TANT, DIPPED, 10uF, 25V, 20%	C37,47,50	-	-	-	-	-
54	037-970	CAPACITOR, TANT, DIPPED, 150uF, 6V, 20%	C7,13	-	-	-	-	-
55	037-973	CAPACITOR, TANT, DIPPED, 330uF, 6V, 20%	C27,28,58	3	3	3	3	3
56	037-970	CAPACITOR, TANT, DIPPED, 150uF, 6V, 20%	C7	-	-	-	-	-
57	055-712	CAPACITOR, MYLAR, .15uF, 5%, 50V	C30	1	1	1	1	1
58	055-166	CAPACITOR, MYLAR, .001uF, 5%, 50V	C36,40,46,49	4	4	4	4	4
59	064-116	CAPACITOR, CERAMIC, .01uF, +80% -20%, 50V	C8,53,54,59,60,69	6	6	6	6	6
60	037-893	CAPACITOR, TANT, DIPPED, 15uF, 20%, 20V	C73	1	1	1	1	1
61	037-960	CAPACITOR, TANT, DIPPED, 150uF, 20%, 15V	C72	1	1	1	1	1
62	064-062	CAPACITOR, CER, MONO, 0.1uF, 20%, 100V	C1,2,10,14,16,17,19,20,22,26,32,33,39,42,44,56,61-66,68,70	-	-	-	-	-
63	064-307	CAPACITOR, CER., MONO, 0.22uF, 20%, 100V	C18,38,41,43	-	-	-	-	-
64	064-193	CAPACITOR, CER., MONO, 0.22uF, 10%, 50V	C18,38,41,43	-	-	-	-	-
65	064-062	CAPACITOR, CER, MONO, 0.1uF, 20%, 100V	C1,2,10,14,16,17,19,20,22,26,32,33,42,44,56,61-66,68,70	23	23	23	23	23
66	037-745	CAPACITOR, TANT, TUB, 47UF, 6V	C6	1	1	1	1	1
67	066-714	RESISTOR, METAL FILM, 35.7K OHMS, 1%	R1,2,3	3	3	3	3	3
68	041-657	RESISTOR, C.C. 2.7 OHMS, 5%, 1/2W	R87	1	1	1	1	1
69	041-002	RESISTOR, C.C. 10 OHMS, 5%, 1/2W	R93	1	1	1	1	1
70	041-489	RESISTOR, C.C. 33 OHMS, 5%, 1/2W	R86	1	1	1	1	1
71	041-393	RESISTOR, C.C. 1 M OHMS, 5%, 1/4W	R45	-	-	-	-	-
72	041-780	RESISTOR, C.C. 2.7M OHMS, 5%, 1/4W	R42	1	1	1	1	1
73	041-782	RESISTOR, C.C. 3.3M OHMS, 5%, 1/4W	R50	-	-	-	-	-
74	041-789	RESISTOR, C.C. 6.8M OHMS, 5%, 1/4W	R5	1	1	1	1	1
75	041-568	RESISTOR, C.C. 4.7 MEG OHMS, 5%, 1/4W	R50	1	1	1	1	1
76	064-567	CAPACITOR, CER., MONO., 0.22uF, 10%, 50V	C18,38,41,43	4	4	4	4	4
77	044-944	RESISTOR, VARIABLE, 5K OHMS, 20%, 1/2W	R15	1	1	1	1	1
78	058-611	RESISTOR, VARIABLE, 10K OHMS, 20%, 1/2W	R71	1	1	1	1	1
79	058-001	RESISTOR, VARIABLE, 50K OHMS, 20%, 1/2W	R34	1	1	1	1	1
80	579-007	TRANSISTOR PNP (D45C11)	Q13,19	-	-	-	-	2

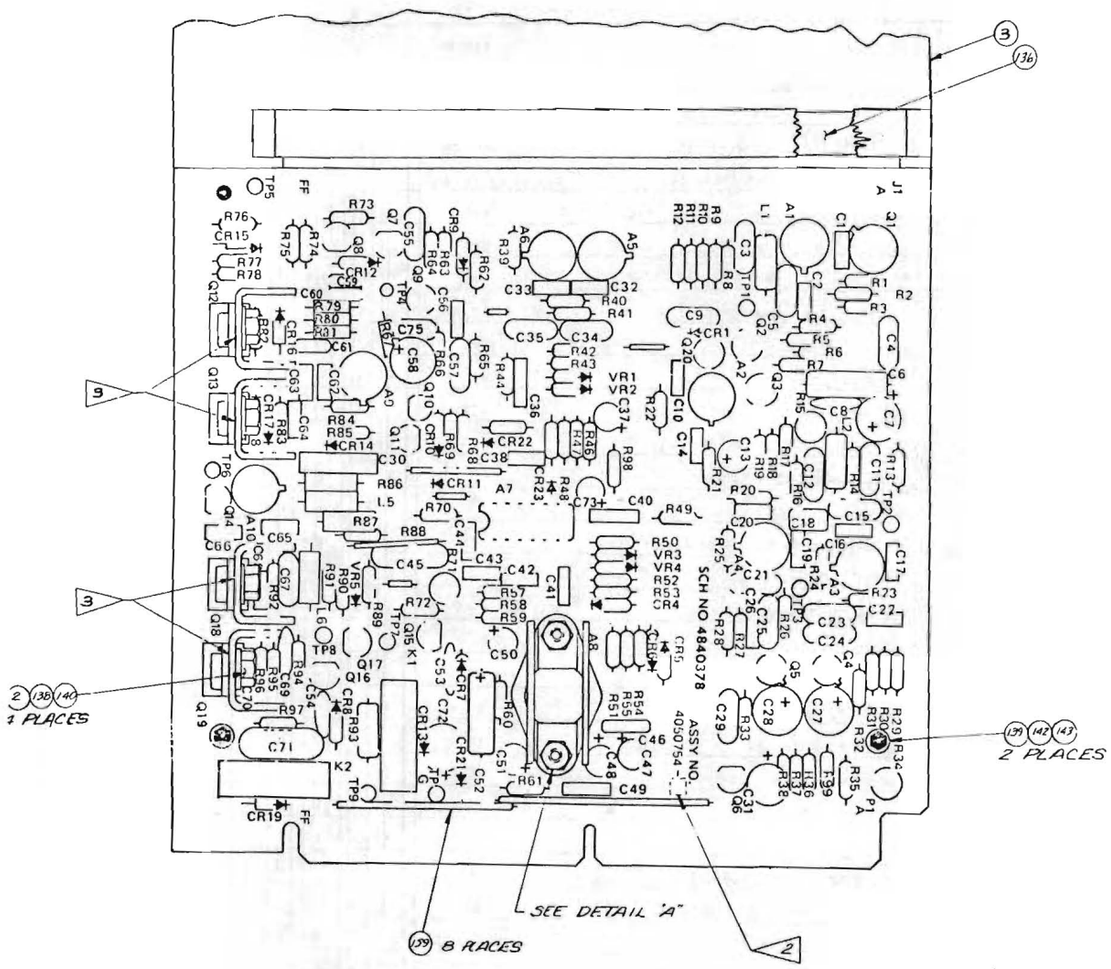
AMPEX \| Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 4050754 SHEET 3	REV V

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -10	-11	-12	-13	-14
81	066-830	RESISTOR, C.F., 10K OHMS, 5%, 1/4W	R13,19,44,52,55,92,98	7	7	7	7	7
82	062-831	RESISTOR, M.F., 68.1 OHMS, 1%, 1/8W, CD666	R32,37	-	-	-	-	-
83	062-624	RESISTOR, M.F., 1.00K OHMS, 1%, 1/8W, CD666	R26,31	-	-	-	-	-
84	042-379	RESISTOR, M.F., 5.90K OHMS, 1%, 1/8W, CD666	R8	1	1	1	1	1
85	062-983	RESISTOR, M.F., 10.0K OHMS, 1%, 1/8W, CD666	R27-30	4	4	4	4	4
86	062-694	RESISTOR, M.F, 15.0K OHMS, 1%, 1/8W CD666	R36	1	1	1	1	1
87	076-019	RESISTOR, M.F., 59.0K OHMS, 1%, 1/8W, CD666	R9	1	1	1	1	1
88	062-624	RESISTOR, M.F., 1.00K OHMS, 1%, 1/8W, CD666	R31	1	1	1	1	1
89	076-190	RESISTOR, M.F., 64.9K OHMS, 1%, 1/8W, CD666	R11,12	2	2	2	2	2
90	066-655	RESISTOR, M.F., 68.1K OHMS, 1%, 1/8W, CD666	R24,25,39	3	3	3	3	3
91								
92	062-601	RESISTOR, M.F., 100K OHMS, 1%, 1/8W, CD666	R40	1	1	1	1	1
93	066-926	RESISTOR, M.F., 267K OHMS, 1%, 1/8W, CD666	R41	1	1	1	1	1
94	076-017	RESISTOR, M.F., 62.1K OHMS, 1%, 1/8W, CD666	R20,23	2	2	2	2	2
95	062-831	RESISTOR, M.F., 68.1 OHMS, 1% 1/8W, CD666	R32	1	1	1	1	1
96	062-847	RESISTOR, M.F., 100 OHMS, 1%, 1/8W, CD666	R37	1	1	1	1	1
97	066-810	RESISTOR, C.F., 10 OHMS, 5%, 1/4W,	R76,82	2	2	2	2	2
98	066-834	RESISTOR, C.F., 33 OHMS, 5%, 1/4W,	R12	1	1	1	1	1
99	066-812	RESISTOR, C.F., 100 OHMS, 5%, 1/4W	R35,38	2	2	2	2	2
100	076-004	RESISTOR, C.F., 180 OHMS, 5%, 1/4W	R69	1	1	1	1	1
101	066-838	RESISTOR, C.F., 330 OHMS, 5%, 1/4W	R18,49	2	2	2	2	2
102	066-665	RESISTOR, C.F., 1K OHMS, 5%, 1/4W	R4	1	1	1	1	1
103	066-816	RESISTOR, C.F., 390 OHMS, 5%, 4W	R94,79,80	3	3	3	3	3
104	066-842	RESISTOR, C.F., 5.1K OHMS, 5%, 1/4W	R4,14,26	-	-	-	-	-
105	066-665	RESISTOR, C.F., 1K OHMS, 5%, 1/4W	R4,14	-	-	-	-	-
106	066-824	RESISTOR, C.F., 1.5K OHMS 5%, 1/4W	R16	1	1	1	1	1
107	066-675	RESISTOR, C.F., 1.8K OHMS, 5%, 1/4W	R75	1	1	1	1	1
108	066-718	RESISTOR, C.F., 5.6K OHMS 5%, 1/4W	R64	1	1	1	1	1
109	066-689	RESISTOR, C.F., 2.2K OHMS, 5%, 1/4W	R89	1	1	1	1	1
110	066-720	RESISTOR, C.F., 3.3K OHMS, 5%, 1/4W	R77	1	1	1	1	1
111	066-668	RESISTOR, C.F., 4.7K OHMS, 5%, 1/4W	R43	1	1	1	1	1
112	066-843	RESISTOR, C.F., 6.2K OHMS, 5%, 1/4W	R17,54	2	2	2	2	2
113	066-829	RESISTOR, C.F., 6.8K OHMS, 5%, 1/4W	R78,81	2	2	2	2	2
114	066-666	RESISTOR, C.F., 2.7K OHMS, 5%, 1/4W	R53	1	1	1	1	1
115	066-711	RESISTOR, C.F., 7.5K OHMS, 5%, 1/4W	R59	1	1	1	1	1
116	066-830	RESISTOR, C.F, 10K OHMS, 5%, 1/4W	R13,19,44,52,55,92	-	-	-	-	-
117	066-856	RESISTOR, C.F., 15K OHMS, 5%, 1/4W	R70	-	-	-	-	-
118	066-712	RESISTOR, C.F., 22K OHMS, 5%, 1/4W	R57,58,68,73,84, 85,88,90,91	9	9	9	9	9
119	066-845	RESISTOR, C.F., 24K OHMS, 5%, 1/4W	R74	-	-	-	-	-
120	066-669	RESISTOR, C.F., 8.2K OHMS, 5%, 1/4W	R95	1	1	1	1	1
121	066-866	RESISTOR, C.F., 27K OHMS, 5%, 1/4W	R33	1	1	1	1	1
122	066-846	RESISTOR, C.F., 30K OHMS, 5%, 1/4W	R10,21	2	2	2	2	2
123	076-046	RESISTOR, C.F., 36K OHMS, 5%, 1/4W	R65	1	1	1	1	1
124	066-860	RESISTOR, C.F., 39K OHMS, 5%, 1/4W	R60	1	1	1	1	1
125	066-845	RESISTOR, C.F., 24K OHMS, 5%, 1/4W	R70,74	2	2	2	2	2

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 4050754 SHEET 4	REV V

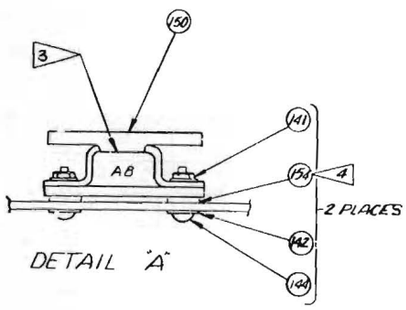
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -10	-11	-12	-13	-14
126	066-842	RESISTOR, C.F., 5.1K OHMS, 5%, 1/4W	R14,26	2	2	2	2	2
127	066-717	RESISTOR, C.F., 47K OHMS, 5%, 1/4W	R46,47,83	3	3	3	3	3
128	066-833	RESISTOR, C.F., 56K OHMS, 5%, 1/4W	R6,7	2	2	2	2	2
129	066-958	RESISTOR, C.F., 75K OHMS, 5%, 1/4W	R61,66	2	2	2	2	2
130	066-849	RESISTOR, C.F., 100K OHMS, 5%, 1/4W	R62,63,67,72,96	-	-	-	-	-
131	066-974	RESISTOR, C.F., 150K OHMS, 5%, 1/4W	R48	1	1	1	1	1
132	066-652	RESISOTR, C.F., 470K OHMS, 5%, 1/4W	R97	1	1	1	1	1
133	066-873	RESISTOR, C.F., 20K OHMS, 5%, 1/4W	R51	1	1	1	1	1
134	066-849	RESISTOR, C.F., 100K OHMS, 1/4W, 5%	R62,63,67,96	4	4	4	4	4
135	087-388	GREASE, SILICON	AB,Q12,13,18,19	A/R	A/R	A/R	A/R	A/R
136	139-842	CONNECTOR, 55 PIN	J1	1	1	1	1	1
137	066-867	RESISTOR, C.F., 51K OHMS, 1/4W, 5%	R72	1	1	1	1	1
138	496-002	NUT WITH ASSEMBLED WASHER, 6-32		4	4	4	4	4
139	470-009	SCREW, CAP, 4-40 X 5/16		2	2	2	2	2
140	471-068	SCREW, PAN, 6-32 X 5/16		4	4	4	4	4
141	496-004	NUT WITH ASSEMBLED WASHER 4-40		2	2	2	2	2
142	501-169	WASHER, FLAT #4		4	4	4	4	4
143	502-002	WASHER, SPRING LOCK #4		2	2	2	2	2
144	471-062	SCREW, PAN 4-40 X 3/8		2	2	2	2	2
145	540-011	INDUCTOR, 22uH, 10%	L3	-	-	-	-	-
146	540-011	INDUCTOR, 22uH, 10%	L3,4	-	-	-	-	-
147	540-003	INDUCTOR, 220uH, 5%	L2,5	2	2	2	2	2
148	540-074	INDUCTOR, 1500uH, 10%	L6	1	1	1	1	1
149	540-059	INDUCTOR, 4700uH, 10%	L1	1	1	1	1	1
150	580-828	HEAT SINK		1	1	1	1	1
151	589-428	I.C. QUAD OP AMP, (TL084CN)	A7	-	-	-	1	1
152	587-458	I.C., QUAD OP AMP (LM324)	A7	1	1	1	-	-
153	587-478	I.C. OP AMP (LM318H)	A1-6,9,10	8	8	8	8	8
154	502-024	WASHER, INTERNAL TOOTH #4		2	2	2	2	2
155	013-599	DIODE, C0458 (1N4531)	CR1,4-14,17-19,21-23	-	-	-	8	18
156	587-701	I.C. VOLTAGE REG., DUAL TRACKING (RC4194TK)	A8	1	1	1	1	1
157	076-003	RESISTOR, C.F., 56 OHMS, 5%, 1/4W	R99	1	1	1	1	1
158	580-304	TRANSISTOR, FET, (P1087E)	Q2,3,9,20	-	-	-	4	4
159	615-124	WIRE, SOLID, INSULATED #24		A/R	A/R	A/R	A/R	A/R

1 NOTE: Q4 & Q5 TO BE HAND SOLDERED USING MINIMUM HEAT TRANSFER PROCESS AFTER FLOW SOLDERING

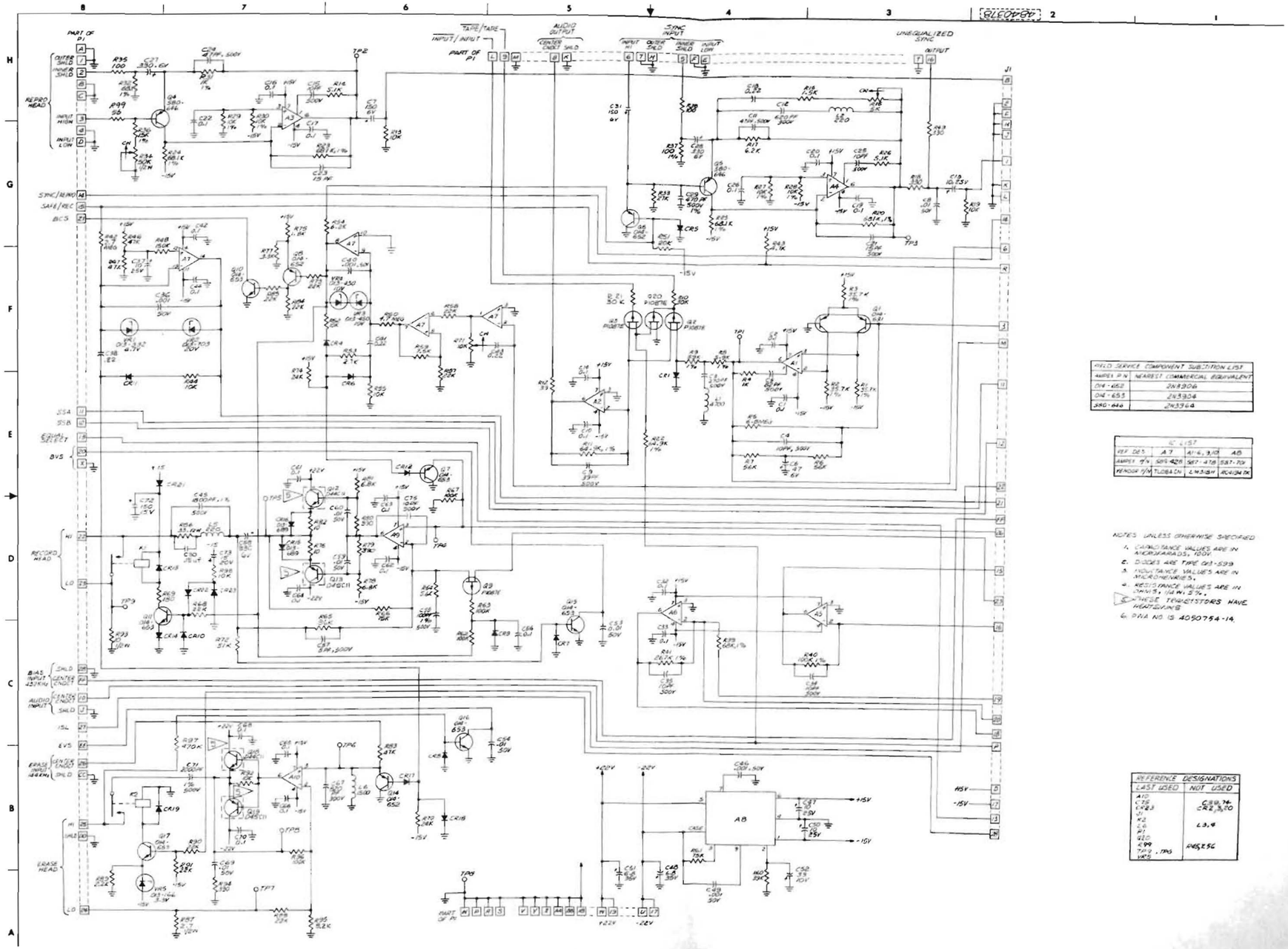


NOTES:

1. ASSEMBLY NO. IS 4050754-14.
2. MARK DASH NO. PER BDI-1.
3. USE ITEM 135 BETWEEN HEATSINK AB, Q12, Q13, Q18, Q19.
4. VARIATION TO HC2-B.



Assembly No. 4050754. Main Audio PWA, No. 1–4



FIELD SERVICE COMPONENT SUBSTITUTION LIST	
AMPEX P/N	NEAREST COMMERCIAL EQUIVALENT
014-652	2N3906
014-653	2N3904
380-646	2N3964

IC LIST			
REF DES	A7	A1-6, 9, 10	A8
AMPEX P/N	509-428	587-478	587-709
VENDOR P/N	TL084CN	LM348N	RC4136TK

NOTES UNLESS OTHERWISE SPECIFIED
1. CAPACITANCE VALUES ARE IN MICROFARADS, 100V.
2. DIODES ARE TYPE 083-539.
3. INDUCTANCE VALUES ARE IN MICROHENRIES.
4. RESISTANCE VALUES ARE IN OHMS, ¼W 5%.
▷ SYMBOLIZE TEMISTORS HAVE HEATSINKS
6. PWA NO IS 4050754-14.

REFERENCE DESIGNATIONS	
LAST USED	NOT USED
A10	
C78	C69,74, C82,3,70
CR23	
J1	
K2	
L6	L3,4
P1	
Q20	
R99	R45,256
TP9 . TP5	
VR5	

Schematic No. 4840378R.
Main Audio PWA, No. 1-4

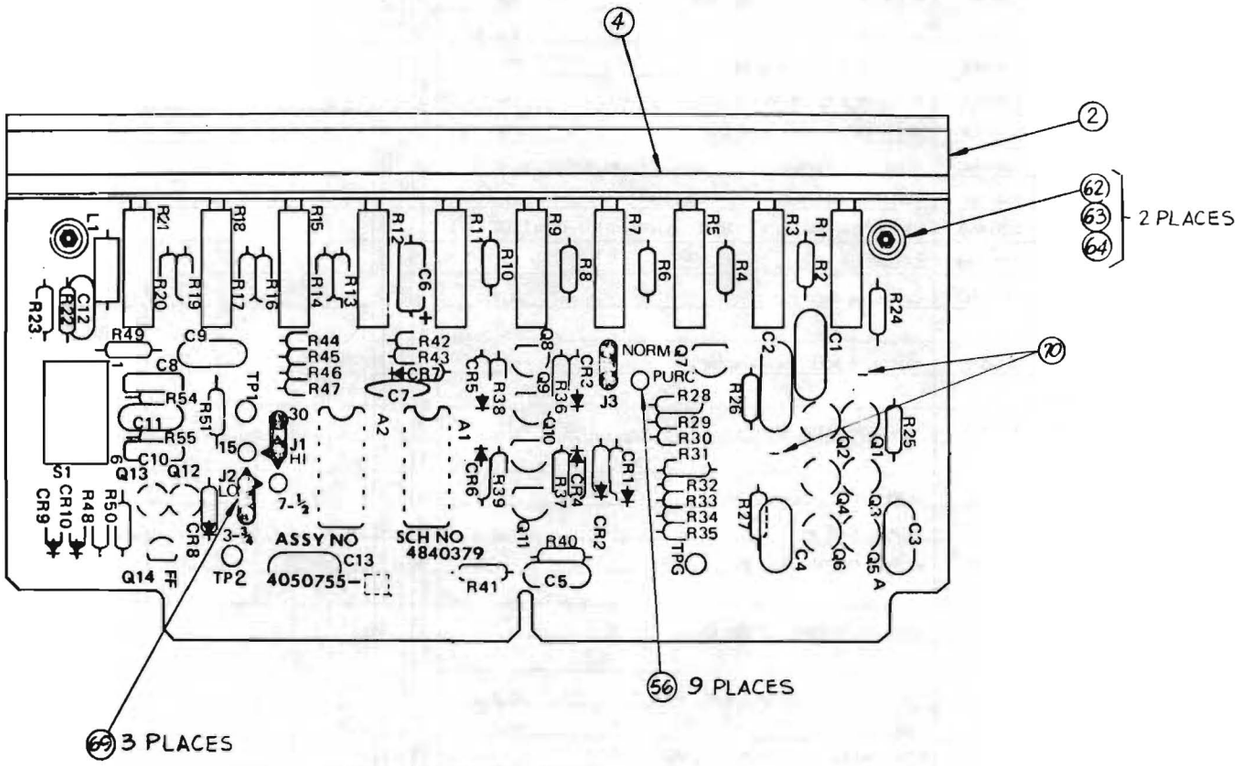
4050755-03 PADNET PWA REV. H

NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

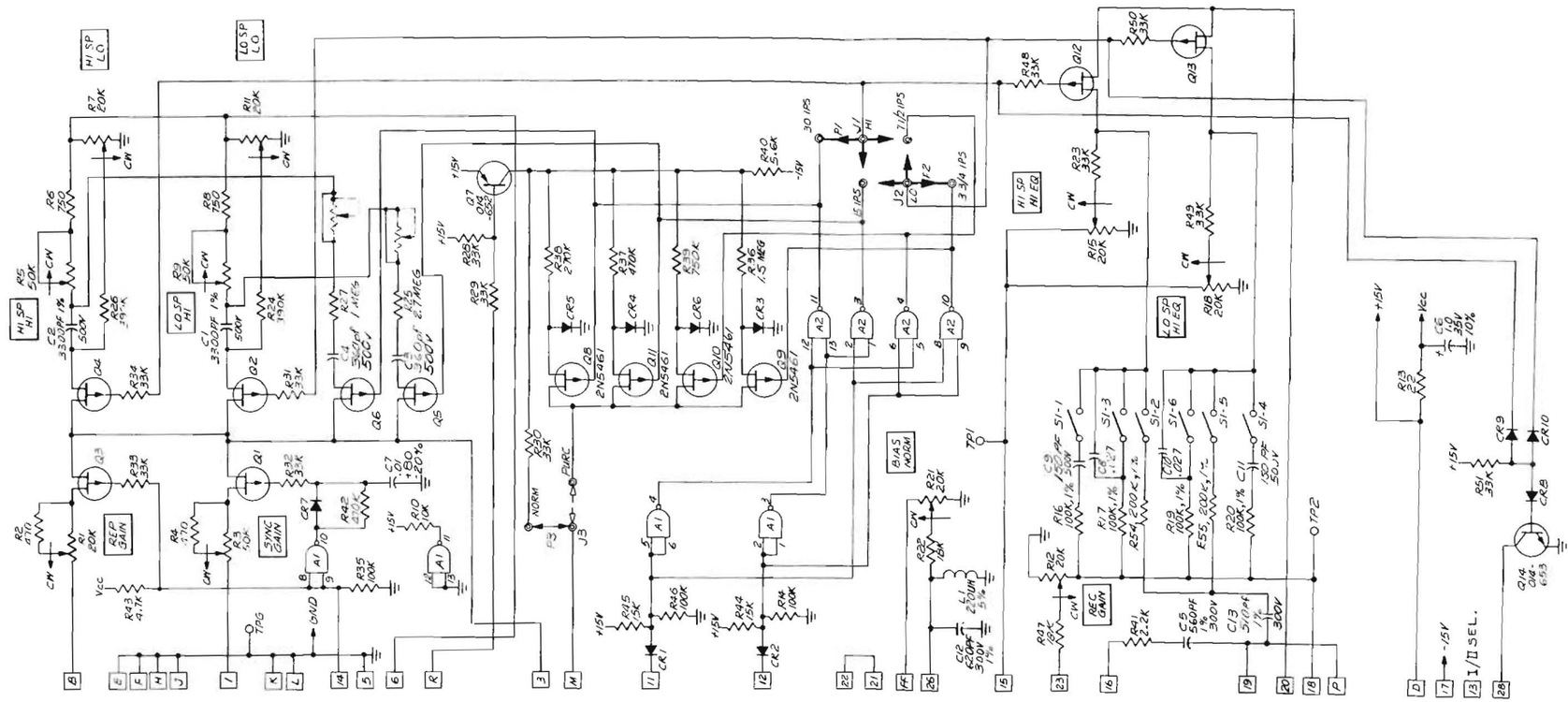
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
1							
2	4120030-01	HANDLE, AUDIO			1	1	1
3	4890379	SCHEMATIC			B	C	D
4	4170326-01	LABEL, PWB HANDLE, AUDIO			1	1	1
5							
6	013-599	DIODE (1N4531)		CR1-10	10	10	10
7	014-652	TRANSISTOR PNP (2N3906)		Q7	1	1	1
8	014-653	TRANSISTOR NPN (2N3904)		Q14	1	1	1
9							
10	580-156	TRANSISTOR, (2N5461)		Q8-11	4	4	4
11	580-304	TRANSISTOR (P1087E)		Q1-6,12,13	8	8	8
12							
13	034-371	CAPACITOR, MICA, 510pF, 1%, 300V		C13	1	1	1
14	034-213	CAPACITOR MICA 150pF 5% 500V		C9,11	2	2	2
15	034-309	CAPACITOR MICA 560pF 1% 300V		C5	1	1	1
16	034-250	CAPACITOR MICA 620pF 1% 300V		C12	1	1	1
17	034-735	CAPACITOR MICA 3300pF 1% 500V		C1,2	2	2	2
18	034-934	CAPACITOR, MICA, 360pf, 5%, 500V		C3,4	2	2	2
19	035-815	CAPACITOR MYLAR .027uF 5% 50V		C8,10	2	2	2
20							
21	037-164	CAPACITOR, TANT 1.0uF 10% 35V		C6	1	1	1
22	064-116	CAPACITOR CER. .01uF +80-20% 50V		C7	1	1	1
23							
24	041-393	RESISTOR, C.C. 1.0 MEG. Ω 5%, 1/4W		R27	1	1	1
25	041-774	RESISTOR C.C. 1.5 MEG. Ω 5%,1/4W		R36	1	1	1
26	041-780	RESISTOR, C.C. 2.7 MEG Ω 5%,1/4W		R25	1	1	1
27							
28							
29	062-601	RESISTOR M.F. 100KΩ 1% 1/8W		R16,17,19,20	4	4	4
30	066-022	RESISTOR, M.F., 200KΩ, 1%, 1/8W		R54,55	2	2	2
31	066-660	RESISTOR, C.F. 22Ω 5% 1/4W		R 13	1	1	1
32	066-818	RESISTOR C.F. 470Ω 5% 1/4W		R2,4	2	2	2
33	066-820	RESISTOR C.F. 750Ω 5% 1/4W		R 6,8	2	2	2
34	066-689	RESISTOR C.F. 2.2KΩ 5% 1/4W		R41	1	1	1
35	066-668	RESISTOR C.F. 4.7KΩ 5% 1/4W		R43	1	1	1
36							
37	066-652	RESISTOR, CF, 470 KΩ, 1/4W, 5%		R37,42			2

AMPEX	Ampex Corporation Redwood City, California	BASE IDENT NO 92739	LIST OF MATERIALS	LM- 4050755	REV H

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
38						
39	066-718	RESISTOR C.F. 5.6KΩ 5% 1/4W	R40	1	1	1
40	066-830	RESISTOR C.F. 10KΩ 5% 1/4W	R10	1	1	1
41	066-856	RESISTOR C.F. 15KΩ 5% 1/4W	R44,45	2	2	2
42						
43	066-832	RESISTOR C.F. 18KΩ 5% 1/4W	R22,47	2	2	2
44						
45	066-847	RESISTOR C.F. 33KΩ 5% 1/4W	R23,28-34,48-51	12	12	12
46	066-849	RESISTOR C.F. 100KΩ 5% 1/4W	R14,35,46	3	3	3
47	076-050	RESISTOR C.F. 270K 5% 1/4W	R38	1	1	1
48	076-053	RESISTOR, C.F. 390KΩ 5% 1/4W	R24,26	2	2	2
49	066-652	RESISTOR C.F. 470KΩ 5% 1/4W	R37	1	1	—
50	066-858	RESISTOR C.F. 4.7MΩ 5% 1/4W	R42	1	1	—
51	076-055	RESISTOR C.F. 750K,5%,1/4W	R39	1	1	1
52	058-668	RESISTOR VARIABLE 20KΩ 10%	R1,3,7,11,12,15,18,21	8	-	-
53	058-388	RESISTOR VARIABLE 50KΩ 10%	R5,9	2	-	-
54	058-668	RESISTOR, VARIABLE 20 K , 10%;	R1,7,11,12,15,18,21		7	7
55	058-388	RESISTOR, VARIABLE 50 K ,	R3,5,9		3	3
56	143-981	CONNECTOR JACK P.C.	REF: J1,2,3	9	9	9
57						
58	119-327	SWITCH, 6 POLE, DUAL-INLINE	S1	1	1	1
59						
60	280-130	PAD, TRANSISTOR MOUNT	REF Q1-6,12,13	3	3	3
61						
62	470-010	SCREW, CAP 4/40 x 3/8		2	2	2
63	501-169	WASHER, FLAT #4		2	2	2
64	502-002	WASHER, SPRING LOCK, #4		2	2	2
65						
66	540-003	INDUCTOR, MOULDED 220uH 5%	L1	1	1	1
67						
68	587-319	I.C. CMOS QUAD 2-INPUT NAND 4011	A1,2	2	2	1
69	602-012	PLUG, SHORTING	P1-3	3	3	3
70	615-124	WIRE, SOLID, INSULATED, #24 AWG, WHITE		A/R	A/R	A/R
		1. CAUTION, CMOS !! USE ANTI STATIC HANDLING PROCEDURES				



Assembly No. 4050755. PADNET PWA



NOTES: UNLESS OTHERWISE SPECIFIED

1. CAPACITANCE VALUES ARE IN MICROFARADS, 50V. 5%
2. DIODES ARE AMPEX P/N 013-599
3. RESISTANCE VALUES ARE IN OHMS, ¼W, 5%.
4. TRANSISTORS ARE TYPE P1087E
5. INTEGRATED CIRCUITS ARE TYPE 4011, PIN 14 TO Vcc, PIN 7 TO GROUND.
6.

FIELD SERVICE COMPONENT SUBSTITUTION LIST	
AMPEX P/N	NEAREST COMMERCIAL EQUIVALENT
014-652	2N3906
014-653	2N3904

7. J1 & J2 SHOWN CONNECTED FOR 30 IPS HIGH SPEED AND 3¾ IPS LOW SPEED.

SPEED SELECT JUMPER CHART	
HI SPEED	LO SPEED
J1 - 30 IPS	J2 - 15 IPS
J1 - 15 IPS	J2 - 7½ IPS
J1 - 7½ IPS	J2 - 3¾ IPS

REFERENCE DESIGNATIONS	
LAST USED	NOT USED
A2 C18 J3 Q14 R55 S1 TP2, TP3 CR10	R58, 59

PRESET RECORD EQUALIBATION		
S1-1	SHELF DOWN	HI SPEED
S1-2	SHELF UP	
S1-3	3180 / ∞	
S1-4	SHELF DOWN	LO SPEED
S1-5	SHELF UP	
S1-6	3180 / ∞	

Schematic No. 4840379D.
PADNET PWA

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
1										
2	4041254-01		SHIELD ASSEMBLY, PWA		1	1	1	1	1	1
3	4170329-AA		LABEL, AUDIO CONTROL 2 SPEED		1	1	1	1	1	1
4	4170329-AB		LABEL, AUDIO CONTROL 4 SPEED		1	1	1	1	1	1
5						1	1	1	1	
6							1	1	1	
7	4840398		SCHEMATIC		REF	C	D	E	G	J
8										
9										
10	013-599		DIODE,SI (1N4531)	CR1-9	9	9	9	9	9	9
11	013-358		DIODE,ZENER, 5.1V,5%,400MW (1N751A)	VR1	1	1	1	1	1	1
12	581-290		DIODE,ZENER,15V,5%,1W (1N4744A)	VR2	1	1	1	1	1	1
13	013-650		DIODE, GE (1N760)	CR10		1	1	1	1	1
14	013-678		DIODE (1N4385)	CR11				1	1	1
15	014-248		TRANSISTOR,NPN (2N2222)	Q2	1	1	1	1	1	1
16	014-653		TRANSISTOR,NPN (2N3904)	Q1	1	1	1	1	1	1
17										
18										
19	017-149		CRYSTAL, 5.184MHz		1	1	1	1	1	1
20	034-177		CAPACITOR, MICA, 100pF, 5%, 500V	C3,19,50					3	3
21	034-177		CAPACITOR, MICA, 100 pF, 5%, 500V	C19,50			2	2	-	-
22	034-376		CAPACITOR,MICA, 33pF±.5pF,500V	C1	1	1	1	1	1	1
23	034-177		CAPACITOR,MICA, 100pF,5%,500V	C19	1	1	-	-	-	-
24	034-253		CAPACITOR,MICA, 330pF,1%,500V	C3	1	1	1	1	-	-
25	034-298		CAPACITOR,MICA, 390pF,5%,500V	C2	1	1	1	1	1	1
26										
27	064-152		CAPACITOR,CERAMIC, .001uF,10%,50V	C26	1	1	1	1	1	1
28	064-116		CAPACITOR,CERAMIC, .01uF,+80-20%,50V	C4-10,12-16,18 C20-22, ,28-36,38-49	38	37	-	-	-	-
29	030-145		CAPACITOR,CERAMIC MONO 0.1uF,50V,20%	C24,25	2	2	2	2	2	2
30	064-116		CAPACITOR, CERAMIC,.01uF, +80-20%,50V	C4-10,12-16,20-22, ,28-36,38-49			36	36	36	36
31	037-900		CAPACITOR, TANT, DIPPED,.68uF ± 20%, 35V	C18			1	1	1	1
32	037-812		CAPACITOR TANT,DIPPED, 10uF,25V,	C23,27	2	2	2	2	2	2
33	067-041		CAPACITOR,TANT,DIPPED, 68uF,6V	C17,37	2	2	2	2	2	2
34	037-973		CAPACITOR,TANT,DIPPED, 330uF,6V	C11	1	1	1	1	1	1
35										
36										
37										

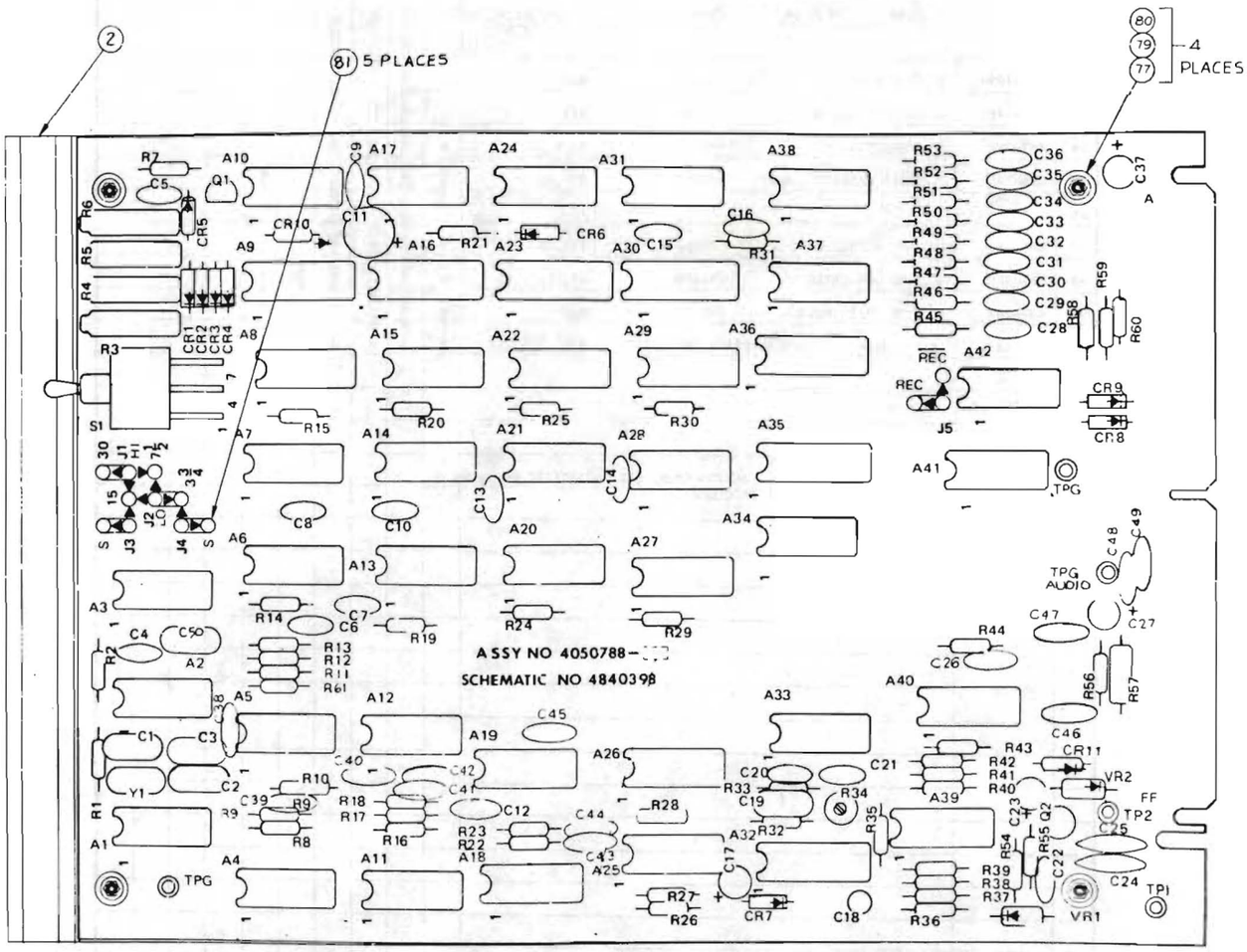
AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4050788 SHEET 2	REV P

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
38	041-042	RESISTOR,CC, 330Ω,10%,1/2W	R57	1	1	1	1	1	1
39									
40									
41	066-812	RESISTOR,CF, 100Ω,5%,1/4W	R1,35,56	3	3	3	3	3	3
42	066-561	RESISTOR,CF, 120Ω,5%,1/4W	R44	1	1	1	1	1	1
43	066-821	RESISTOR,CF, 820Ω,5%,1/4W	R2	1	1	1	1	-	-
44	066-840	RESISTOR, C.F., 680 OHMS, 5%, 1/4W	R2						1
45	066-663	RESISTOR, C.F., 220 OHM, 5% 1/4W	R61						1
46	066-665	RESISTOR,CF, 1.0KΩ,5%,1/4W	R11-13	3	3	3	3	3	-
47	066-826	RESISTOR,CF, 2.0KΩ,5%,1/4W	R54	1	1	1	1	1	1
48	066-689	RESISTOR,CF, 2.2KΩ,5%,1/4W	R15,20,21,25,26, R28,30,45-53, R58-60	19	19	19	19	19	19
49	066-668	RESISTOR,CF, 4.7KΩ,5%,1/4W	R8-10,16-18,22, R23,31,36	10	10	10	10	10	10
50	066-664	RESISTOR, C.F., 510 OHM, 5%, 1/4W	R11						1
51	066-665	RESISTOR, C.F., 1.0K OHM, 5%, 1/4W	R12,13						2
52	066-718	RESISTOR,CF, 5.6KΩ,5%,1/4W	R14,19,24,29	4	4	4	4	4	4
53	066-829	RESISTOR,CF, 6.8KΩ,5%,1/4W	R33	1	1	1	1	1	1
54	066-856	RESISTOR,CF, 15KΩ,5%,1/4W	R7	1	1	1	1	1	1
55									
56									
57	066-712	RESISTOR,CF, 22KΩ,5%,1/4W	R39,41	2	2	2	2	2	2
58	066-846	RESISTOR,CF, 30KΩ,5%,1/4W	R32	1	1	1	1	1	1
59	066-848	RESISTOR,CF, 43KΩ,5%,1/4W	R27	1	1	1	1	1	1
60	066-717	RESISTOR,CF, 47KΩ,5%,1/4W	R55	1	1	1	1	1	1
61	076-009	RESISTOR,CF, 68KΩ,5%,1/4W	R40	1	1	1	1	1	1
62	066-676	RESISTOR,CF, 560KΩ,5%,1/4W	R37,38,42,43	4	4	4	4	4	4
63									
64									
65	058-611	POTENTIOMETER, 1-TURN,10KΩ	R34	1	1	1	1	1	1
66	058-341	POTENTIOMETER, 20-TURN, 2KΩ	R3-6	4	4	4	4	4	4
67									
68									
69									
70									
71									
72									
73	119-373	SWITCH,TPDT	S1	1	1	1	1	1	1
74									
75	143-981	CONNECTOR,PC TIP JACK		13	13	13	13	13	13
76									
77	470-009	SCREW,CAP., 4-40 X 5/16		4	4	4	4	4	4
78	473-592	SCREW, BINDER HD, 2-56 x 3/16				1	1	1	1
79	501-169	WASHER,FLAT, #4		4	4	4	4	4	4
80	502-002	WASHER,SPRING LOCK, #4		4	4	4	4	4	4
81	602-012	SHORTING PLUG,	P1-5	5		5	5	5	5

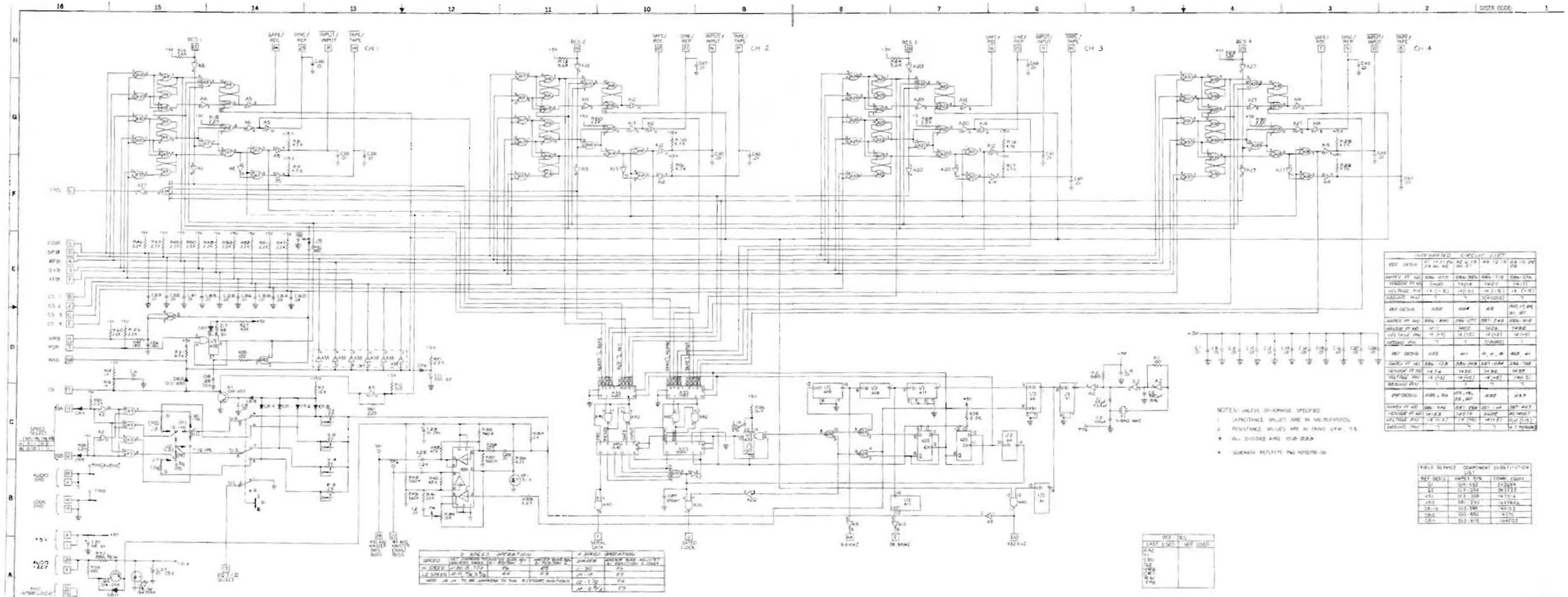
AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4050788 SHEET 3	REV P

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
82	586-075	IC,QUAD 2-INPUT NAND (7400)	A7,14,21,28, A40,42	7	7	7	7	7	7
83	586-326	IC,HEX INVERTER (7404)	A2,6,13,20,27	5	5	5	5	5	5
84	586-713	IC,HEX BUFFER, OC,HV (7407)	A5,12,19	3	3	3	3	3	3
85	586-076	IC,TRIPLE 3 INPUT NAND (7410)	A8,15,22,29	4	4	4	4	4	4
86									
87	586-890	IC,HEX BUFF, OC (7417)	A38	1	1	1	1	1	1
88	586-077	IC,DUAL,4-INPUT, NAND (7420)	A34	1	1	1	1	1	1
89	587-543	IC,QUAD,2-INPUT,NAND OC (7426)	A3	1	1	1	1	1	1
90	586-918	IC,QUAD, 2-INPUT,OR (7432)	A10,17,24,31,37	5	5	5	5	5	5
91									
92	586-108	IC,DUAL D, FLIP-FLOP (7474)	A25	1	1	1	1	1	1
93	586-248	IC,COUNTER,DECADE (7490)	A11	1	1	1	1	1	1
94	587-084	IC,COUNTER,BY 12 (7492)	A1,4,18	3	3	3	3	3	3
95	586-785	IC,SHIFT REGISTER, 4-BIT (7495)	A33,41	2	2	2	2	2	2
96									
97	586-948	IC,DUAL 4 TO 1 DATA SEL, (74153)	A35,36	2	2	2	2	2	2
98	587-266	IC,QUAD S-R LATCH (74279)	A9,16,23,30	4	4	4	4	4	4
99	587-144	IC,DUAL MULTI,MONO (9602)	A32	1	1	1	1	1	1
100	587-447	IC,MOS,DUAL PAIR AND INVERTER (MC14007)	A39 ⚠1	1	1		1	1	1

⚠1 CAUTION-CMOS, USE ANTISTATIC HANDLING PROCEDURES.



Assembly No. 4050788. Audio Control PWA, No. 5



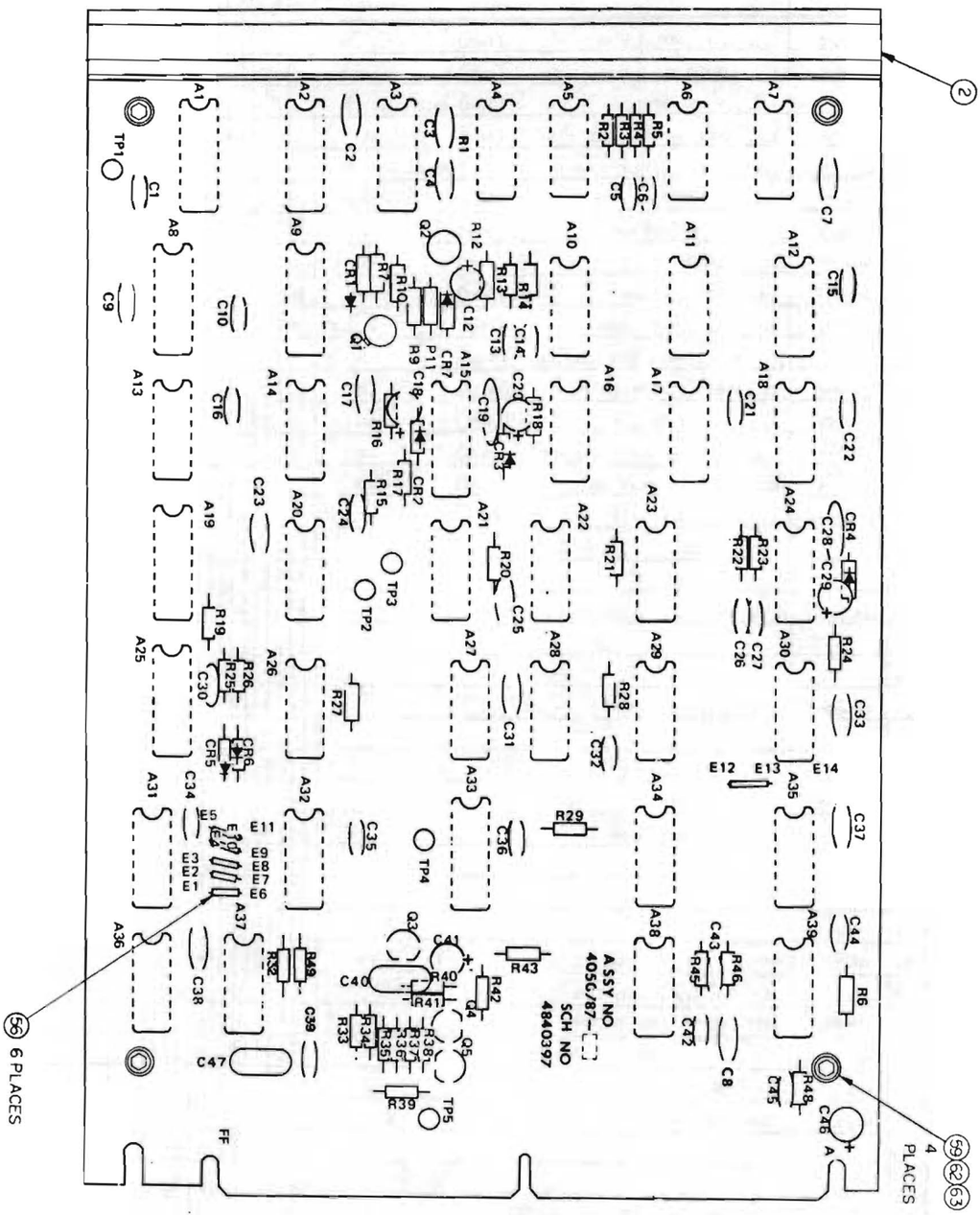
Schematic No. 4840398J.
Audio Control PWA, No. 5

4050787-06 TRANSPORT LOGIC AND TAPE TIMER PWA, NO. 7 REV. M
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

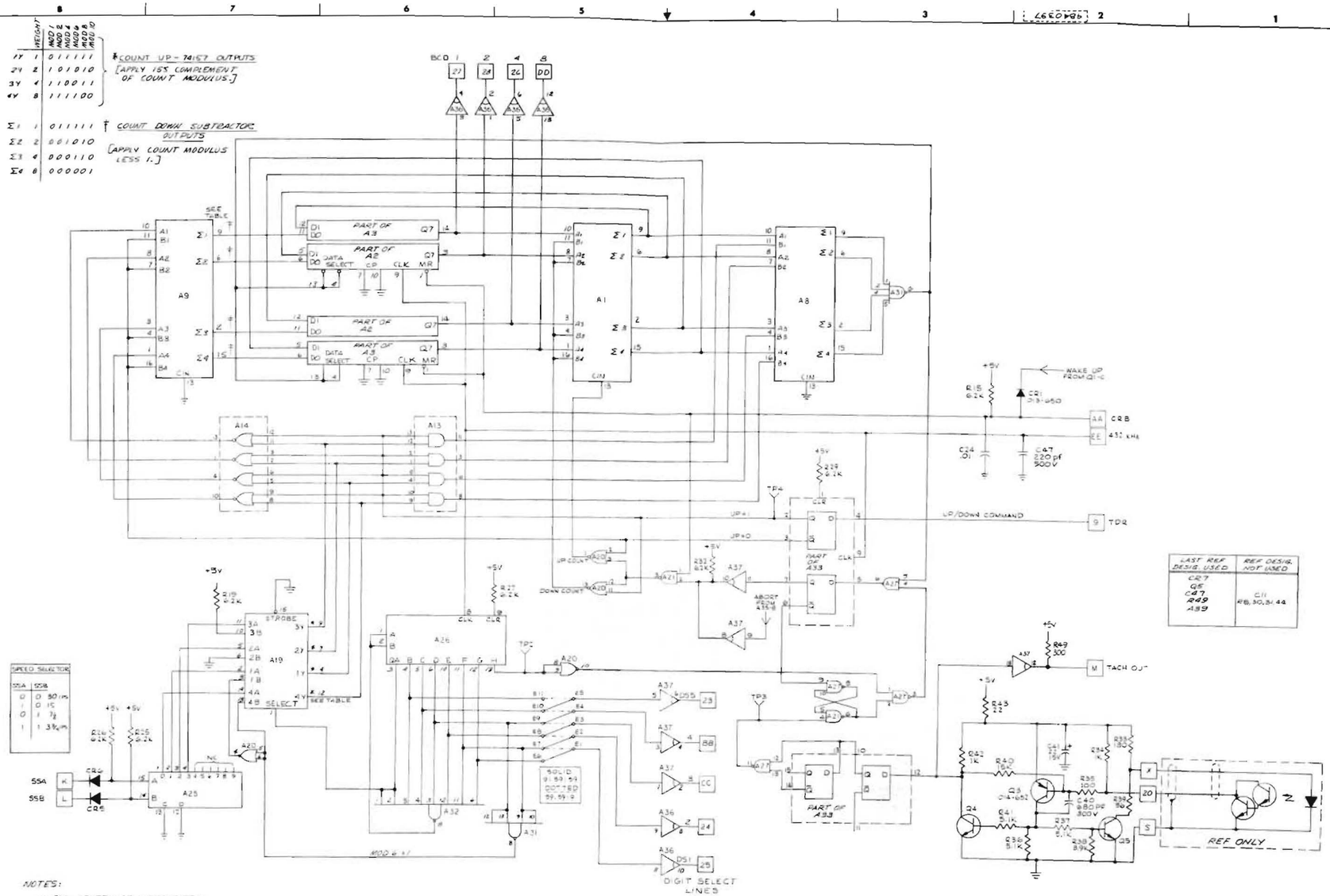
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER					
					-01	-02	-03	-04	-05	-06
1					1	-	-	-	-	
2	4041244-AA	SHIELD ASSY,PWA			1	1	1	1	1	1
3	4170327-AA	LABEL,PWA			1	1	1	1	1	1
4	4840397	SCHEMATIC			REF	B	C	D	E	F
5										
6	013-599	DIODE, SILICON (1N4531)		CR2-6	5	5	5	5	5	5
7	013-650	DIODE, GERMANIUM (1N760)		CR1	1	1	1	1	1	1
8	013-678	DIODE, SILICON, (1W4005)		CR7		1	1	1	1	1
9	014-653	TRANSISTOR, NPN (2N3904)		Q4,5		2	2	2	2	2
10	014-652	TRANSISTOR, PNP (2N3906)		Q3	1	1	1	1	1	1
11	014-653	TRANSISTOR, NPN, 2N3904		Q1,2,4,5	4	-	-	-	-	-
12	014-248	TRANSISTOR, NPN (2N2222)		Q1		1	1	1	1	1
13	030-145	CAPACITOR, CER.MONO, 0.1 uF, 50V, 20%		C19,28		2	2	2	2	2
14	034-228	CAPACITOR,MICA,DIPPED, 620pF,300V		C40	1	1	1	1	1	1
15	037-954	CAPACITOR, TANT, DIPPED, 22 uF, 15V		C12,41		2	-	-	-	-
16	037-812	CAPACITOR,TANT.,DIPPED,10uF,25V		C20	1	1	1	1	1	1
17	037-298	CAPACITOR,TANT.,DIPPED,47uF,6V		C29	1	1	-	-	-	-
18	037-954	CAPACITOR,TANT.,DIPPED,22uF,15V		C11,41	2	-	-	-	-	-
19	067-041	CAPACITOR,TANT.,DIPPED,68uF,6V		C46	1	1	1	1	1	1
20	037-970	CAPACITOR, TANT, 150 uF, 6V		C18		1	1	1	1	1
21	064-115	CAPACITOR,CERAMIC,DISC,.1uF		C12,19,28	3	-	-	-	-	-
22	064-116	CAPACITOR,CERAMIC,DISC,.01uF		C1-10,13-17,21-27,30-37, 38,39,42-45	36	36	36	36	36	36
23	066-827	RESISTOR,C.F,3.9Kohm,5%,1/4W		R38	1	1	1	1	1	1
24	066-660	RESISTOR,CF,22ohm,5%,1/4W		R43	1	1	1	1	1	1
25	076-003	RESISTOR,CF,56ohm,5%,1/4W		R39	1	1	1	1	1	1
26	066-812	RESISTOR,CF,100ohm,5%,1/4W		R10,35	2	-	-	-	-	-
27	066-661	RESISTOR,CF,120ohm,5%,1/4W		R1,20	2	2	2	2	2	2
28	076-004	RESISTOR.C.F.,180ohm,5%,1/4W		R33,	1	1	1	1	1	1
29	066-665	RESISTOR,CF,1Kohm,5%,1/4W		R12,17,22,34,42	5	-	-	-	-	-
30	066-689	RESISTOR,CF,2.2Kohm,5%,1/4W	R4 ,13,14,	23,28,45,48	7	7	7	7	7	7
31	066-842	RESISTOR,CF,5.1Kohm,5%,1/4W		R36,37,41	3	3	3	3	3	3
32	066-843	RESISTOR,CF,6.2Kohm,5%,1/4W		R2,3,6,7,15,19,21,25, 5,26,27,29,32,46	14	14	14	14	14	14
33	066-830	RESISTOR,CF,10Kohm,5%,1/4W		R8	1	-	-	-	-	-
34	066-856	RESISTOR,CF,15Kohm,5%,1/4W		R40	1	1	1	1	1	1
35	066-847	RESISTOR,CF,33Kohm,5%,1/4W		R16,18,24	3	3	3	3	3	3
36	066-717	RESISTOR,CF,47Kohm,5%,1/4W		R11	1	-	-	-	-	-
37	066-849	RESISTOR,CF,100Kohm,5%,1/4W		R9	1	-	-	-	-	-

AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO. (07910) | LIST OF MATERIALS | LM-4056787 SHEET 2 | REV M

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06	
38	586-075	I.C. QUAD 2-INPUT NAND (7400)	A4,7,11,18,21,22,27,34,35	9	9	9	9	9	9	
39	586-109	I.C. QUAD 2-INPUT NOR (7402)	A14,20	2	2	2	2	2	2	
40	586-326	I.C. HEX INVERTER (7404)	A5,17,23,38,39	5	5	5	5	5	5	
41	586-759	I.C. QUAD 2-INPUT AND (7408)	A13	1	1	1	1	1	1	
42	586-076	I.C. TRIPLE 3-INPUT NAND (7410)	A6,10,12,28,29,30	6	6	6	6	6	6	
43	586-890	I.C. HEX BUFFER,OPEN COLL (7417)	A36,37	2	2	2	2	2	2	
44	586-077	I.C. DUAL 4-INPUT NAND (7420)	A16,31	2	2	2	2	2	2	
45	586-078	I.C. 8-INPUT NAND (7430)	A32	1	1	1	1	1	1	
46	586-423	I.C. BCD/DEC.DECODER (7442)	A25	1	1	1	1	1	1	
47	586-554	I.C. 4 BIT BINARY ADDER (7483)	A1,8,9	3	3	3	3	3	3	
48	586-903	I.C. QUAD,2-INPUT DATA SELECTOR (74157)	A19	1	1	1	1	1	1	
49	586-450	I.C. 8 BIT SHIFT REGISTER (74164)	A26	1	1	1	1	1	1	
50	586-925	I.C. QUAD D FLIP FLOP (74175)	A33	1	1	1	1	1	1	
51	586 303	I.C. DUAL D BIT SHIFT REGISTER (9328)	A2,3	2	2	2	2	2	2	
52	587-144	I.C. DUAL MONOSTABLE MULTI. (9602)	A15	1	1	1	1	1	1	
53	587-416	I.C. MONOSTABLE MULTI (9600)	A24	1	1	1	1	1	1	
54										
55										
56	615-124	WIRE,SOLID,INSULATED,#24 AWG WHITE		A/R	A/R	A/R	A/R	A/R	A/R	
57										
58										
59	470-009	SCREW,CAP, 4-40-5/16		4	4	4	4	4	4	
60										
61										
62	501-169	#4 FLAT WASHER		4	4	4	4	4	4	
63	502-002	WASHER,SPRING LOCK #4		4	4	4	4	4	4	
64										
65										
66										
67	066-812	RESISTOR, CF, 100 OHMS, 5%, 1/4W	R35	-	1	1	1	1	1	
68	066-665	RESISTOR, CF, 1K, 5%, 1/4W	R10,12,17,22,34,42	-	6	6	6	6	6	
69	066-830	RESISTOR, CF, 10K, 5%, 1/4W	R9	-	1	1	1	1	1	
70	066-849	RESISTOR, CF, 100K, 5%, 1/4W	R11	-	1	1	1	1	1	
71	066-815	RESISTOR,CF, 300 OHM, 5%, 1W,	R49						1	
72	014-698	TRANSISTOR, NPN (2N3565)	Q2	-	1	1	1	1	1	
73										
74										
75	037-954	CAPACITOR, TANT, DIPPED, 22uF, 15V	C41				1	1	1	1
76	037-298	CAPACITOR, TANT, DIPPED, 47uF, 6V	C12,29			2	2	2	2	
77	034-240	CAPACITOR, MICA DIPPED, 220pF, 500V, 5%:	C47				1	1	1	



Assembly No. 4050787. Transport Logic and Tape Timer PWA, No. 7



NOTES:

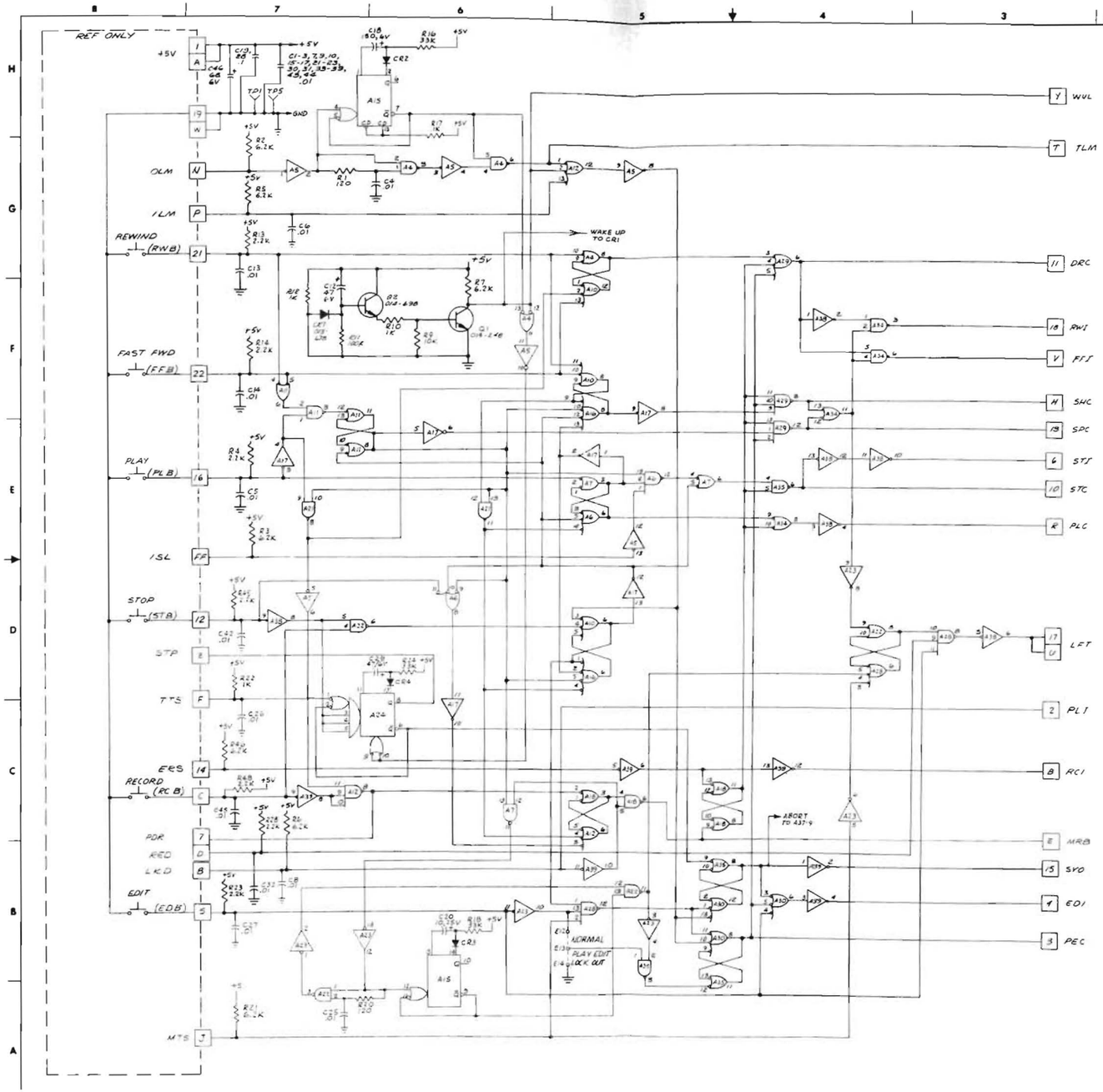
UNLESS OTHERWISE SPECIFIED:

1. ALL RESISTOR VALUES ARE IN OHMS, 1/4W, 5%
2. ALL CAPACITOR VALUES ARE IN MICROFARADS, 50V.
3. ALL DIODES ARE 018-399
4. ALL TRANSISTORS ARE D14-653.
5. SCHEMATIC REFLECTS PWA 4050787-06.

REFERENCE DESIGNATION	A4, 7, 11, 18, 21, 23, 27, 34, 35	A4, 10	A5, 17, 33, 38	A15	A6, 10, 12, 28, 29, 30	A36, 37	A46, 31	A51
AMPEX PART NO.	586-075	586-109	586-316	586-750	586-076	586-890	586-077	586-078
VENDOR PART NO.	7400	7401	7404	7405	7410	7417	7420	7430
VCC +5V PIN	14	14	14	14	14	14	14	14
GND PIN	7	7	7	7	7	7	7	7

REFERENCE DESIGNATION	A29	A16	A1, 8, 9	A19	A33	A2, 3	A24	A15
AMPEX PART NO.	586-423	586-450	586-554	586-903	586-925	586-303	587-416	587-144
VENDOR PART NO.	7442	74184	7483	74157	74175	9328	9600	9602
VCC +5V PIN	16	16	16	16	16	16	14	16
GND PIN	8	7	12	8	8	8	7	8

Schematic No. 4840397F,
Transport Logic and Tape Timer PWA,
No. 7 (Sheet 1 of 2)



Schematic No. 4840397F.
Transport Logic and Tape Timer PWA,
No. 7 (Sheet 2 of 2)

AMPEX 4890407-02

6-89/6-90

4050860-06 CAPSTAN SERVO PWA, NO. 8 REV. K
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

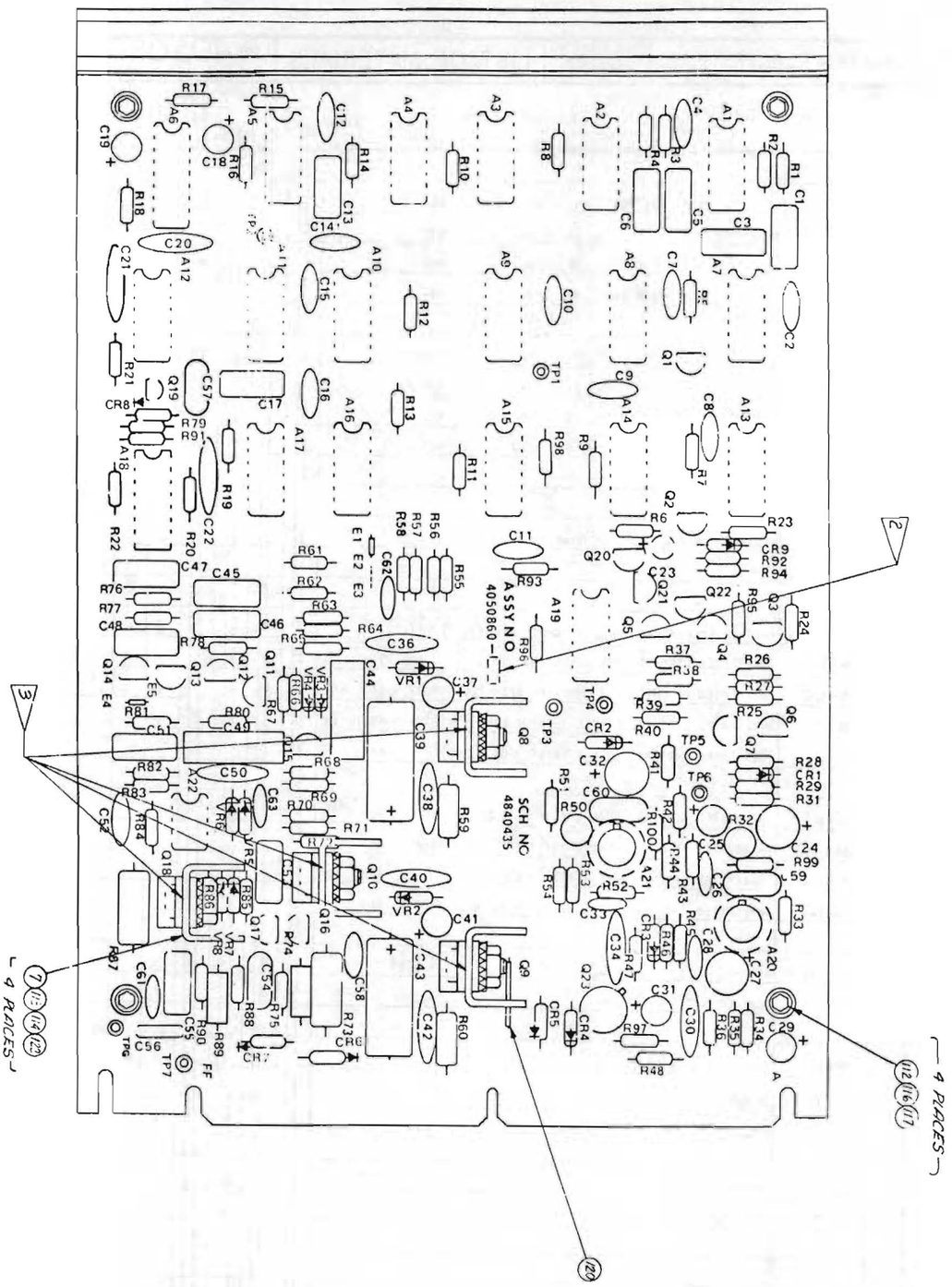
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
1										
2										
3										
4										
5	4041244-AA		SHIELD ASSY, PWA					1		1
6	4170327-AC		LABEL, PWA			1	1	1	1	1
7	4290857-01		HEATSINK, TRANSISTOR	REF: Q8,9,10,18	4	4	4	4	4	4
8	4840435		SCHEMATIC		A	B	E	F	G	H
9										
10	013-167		DIODE, ZENER, 8.2V, 400 MW (1N756A)	VR3,VR4	2	2	2	2	2	2
11	013-313		DIODE, ZENER, 12V, 400 MW (1N963B)	VR7,VR8	2	2	2	2	2	2
12	013-371		DIODE, ZENER, 13V, 400 MW (1N964B)	VR1,VR2	2	2	2	2	2	2
13	013-599		DIODE, SWITCHING, (1N4531)	CR1-5,8,9	7	7	7	7	7	7
14	013-678		DIODE, SILICON 1A (1N4385)	CR6,7	2	2	2	2	2	2
15	013-983		DIODE, ZENER, 5.6V, 400 MW (1N757A)	VR5,VR6	2	2	2	2	2	2
16										
17	014-652		TRANSISTOR, PNP (2N3906)	Q5,Q17	2	2	2	2	2	2
18	014-653		TRANSISTOR, NPN (2N3904)	Q1-3,6,7,12,16,19,20,21,23	11	11	11	11	11	11
19	014-787		TRANSISTOR, NPN (MPS 6512.5)	Q13,14	2	2	2	2	2	2
20	014-862		TRANSISTOR, NPN (MOTOROLA)	Q13,14			1	2	4	4
21	580-156		FET, (2N5461)	Q4,11,15,22	4	4	4	4	4	4
22	580-760		TRANSISTOR, NPN (D44C9)	Q8,18	2	2	2	2	2	-
23	580-761		TRANSISTOR, PNP (D45C9)	Q9,10	2	2	2	2	2	-
24										2
25	063-027		CAPACITOR, ALUM. 25 uF, -10 + 75%, 50V	C39,43	2	2	2	2	2	2
26	579-014		TRANSISTOR, NPN (D44H11)	Q8,18						2
27	037-918		CAPACITOR, TANT, .22uF 20%, 35V	C19	1	1	1	1	1	1
28	037-925		CAPACITOR, TANT, 1.5uF ±20%, 25V	C23	1	1	1	1	1	1
29	037-893		CAPACITOR, TANT, 15uF, ±20%, 20V	C18	1	1	1	1	1	1
30	037-954		CAPACITOR, TANT, 22uF, ±20%, 15V	C25,31,37,41	4	4	4	4	4	4
31	064-116		CAPACITOR, CER, .01UF, +80 -20 %, 50V	C2,4,7-12,14-16,26,28,33,52,58,63						17
32	067-041		CAPACITOR, TANT, 68uF, ±20%, 6V	C29	1	1	1	1	1	1
33	037-957		CAPACITOR, TANT, 68uF, ±20%, 15V	C24,32	2	2	2	2	2	2
34	037-970		CAPACITOR, TANT, 150 uF, ±20%, 6V	C27			1	1	1	1
35	030-094		CAPACITOR, MONO, 1.0uF	C56			1	1	1	1
36	064-152		CAPACITOR, CERAMIC, .001uF, ±10%, 50V	C35				-		-
37	064-116		CAPACITOR, CER, .01uF, +80-20%, 50V	C2,4,7-12,14-16,26,28,33,52,58	16	16	16	16	16	-

AMPEX \| Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 4050860 SHEET 2	REV K

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
38	030-145	CAPACITOR, CER MONO, 0.1uF, 50V, 20%	C20,21,22,30,34, 36,38,40,42,50	10	10	10	10	10	10
39	064-062	CAPACITOR, CER, MONO, 0.1UF, 100V 20%	C61,62					-	2
40	055-163	CAPACITOR, MYLAR, .0033uF, 10%, 50V	C13,17,53	3	3	3	3	3	3
41	055-955	CAPACITOR, MYLAR, .0056uF, ±10%, 50V	C48	1	1	1	1	1	1
42	055-956	CAPACITOR, MYLAR, .0068uF, 10%, 50V	C3,5	2	2	2	2	2	2
43	055-161	CAPACITOR, MYLAR, .01uF, ±10%, 50V	C1,6,45,55	4	4	4	4	4	4
44									
45	055-268	CAPACITOR, MYLAR, .022uF, ±10%, 50V	C46	1	1	1	1	1	1
46	055-159	CAPACITOR, MYLAR, .047uF, ±10%, 50V	C51	1	1	1	1	1	1
47	055-483	CAPACITOR, MYLAR, .056uF, ±10%, 50V	C47	1	1	1	1	1	1
48	069-050	CAPACITOR, MYLAR, .082uF, ±10%, 50V	C49	1	1	1	1	1	1
49	055-157	CAPACITOR, MYLAR, .1uF, ±10%, 50V	C44	1	1	1	1	1	1
50	034-215	CAPACITOR, MICA, 10 pF, 5%, 500V	C59,60	2	-	-	-	-	-
51	034-177	CAPACITOR, MICA, 100 pF, 5%, 500V	C57	1	1	1	1	1	1
52	034-286	CAPACITOR, MICA, 200 pF, 5%, 500V	C54	1	1	1	1	1	1
53	034-224	CAPACITOR, MICA, 160 PF, 1%, 500V	C59,60		2	2	2	2	2
54	066-834	RESISTOR, C.F. 33 OHMS, 5%, 1/4W	R35			1	1	1	1
55	041-133	RESISTOR, COMP, 27 OHMS, 10%, 1W	R73,87	2	2	2	2	2	2
56	041-345	RESISTOR, COMP, 51 OHMS, 5%, 1/2W	R74,89			2	2	2	2
57	066-834	RESISTOR, C.F. 33 OHMS, 5%, 1/4W	R35,74,89	3	3	-	-	-	-
58	066-855	RESISTOR, C.F. 39 OHMS, 5%, 1/4W	R34	1	1	1	1	1	1
59	066-812	RESISTOR, C.F. 100 OHMS, 5%, 1/4W	R42,48	2	2	2	2	2	2
60	066-661	RESISTOR, C.F. 120 OHMS, 5%, 1/4W	R9,14,19	3	3	3	3	3	3
61	041-343	RESISTOR, COMP, 680 OHMS, 5%	R59,60				2	2	2
62	076-004	RESISTOR, C.F. 180 OHMS, 5%, 1/4W	R88	1	1	1	1	1	1
63	066-663	RESISTOR, C.F. 220 OHMS, 5%, 1/4W	R43,53	2	2	2	2	2	2
64	041-043	RESISTOR, COMP, 390 OHMS, 10%, 1/2W	R59,60	2	2	2	-	-	-
65	066-818	RESISTOR, C.F. 470 OHMS, 5%, 1/4W	R33,44	2	2	2	2	2	2
66	066-665	RESISTOR, C.F. 1.0K OHMS, 5%, 1/4W	R11,18,75,91, 92,97	6	6	6	6	6	6
67	066-689	RESISTOR, C.F. 2.2K OHMS, 5%, 1/4W	R7,21,98	3	3	3	3	3	3
68	066-720	RESISTOR, C.F. 3.3K OHMS, 5%, 1/4W	R36,47,86	3	3	3	3	3	3
69	066-668	RESISTOR, C.F. 4.7K OHMS, 5%, 1/4W	R29,41,54,71, 82,85	6	6	6	6	6	6
70	066-842	RESISTOR, C.F. 5.1K OHMS, 5%, 1/4W	R1-4,37,99,100	7	7	7	7	7	7
71	066-843	RESISTOR, C.F. 6.2K OHMS, 5%, 1/4W	R5,8,10,12,13,16, 22,25,28,40,55-58,96	15	15	15	5	5	15
72									
73	066-711	RESISTOR, C.F. 7.5K OHMS, 5%, 1/4W	R51	1	1	1	1	1	1
74	066-830	RESISTOR, C.F. 10K OHMS, 5%, 1/4W	R24,39,46,63, 79,93,94	7	7	7	7	7	7
75	066-712	RESISTOR, C.F. 22K OHMS, 5%, 1/4W	R20,23,72,78,81	5	5	5	5	5	5
76	066-845	RESISTOR, C.F. 24K OHMS, 5%, 1/4W	R90	1	1	1	1	1	1
77									
78	066-866	RESISTOR, C.F. 27K OHMS, 5%, 1/4W	R38	1	1	1	1	1	1
79	066-847	RESISTOR, C.F. 33K OHMS, 5%, 1/4W	R6	1	1	1	1	1	1
80	066-717	RESISTOR, C.F. 47K OHMS, 5%, 1/4W	R15,17,26,27, 64,65,95	7	7	7	7	7	7
81	066-867	RESISTOR, C.F. 51K OHMS, 5%, 1/4W	R61,62,76,77	4	4	4	4	4	4
82	066-833	RESISTOR, C.F. 56K OHMS, 5%, 1/4W	R68	1	1	1	1	1	1

AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO 92739 | LIST OF MATERIALS | LM-4050860 SHEET 3 | REV K

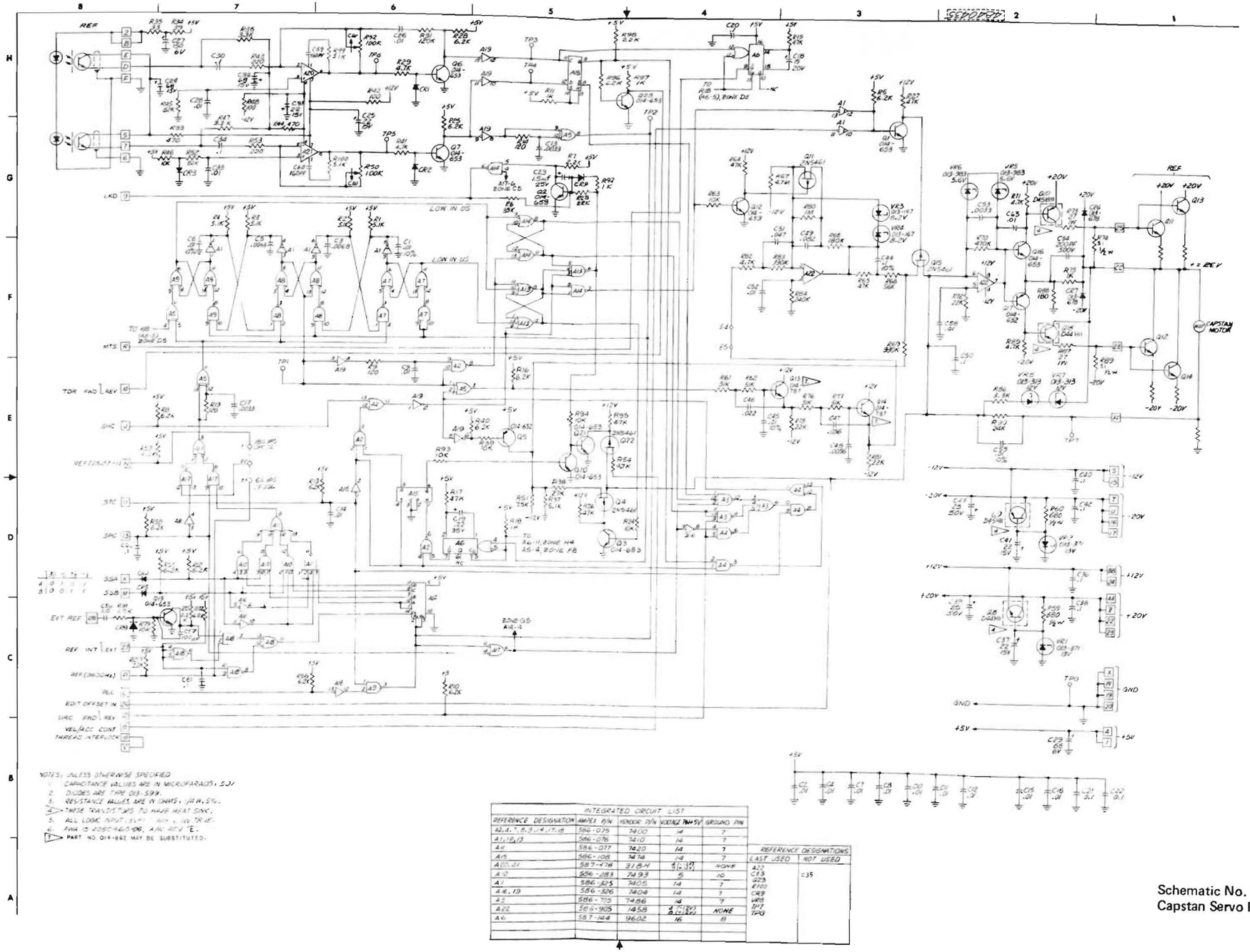
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-06
83								
84	066-912	RESISTOR, C.F. 82K OHMS, 5%, 1/4W	R45,52	2	2	2	2	2
85	066-868	RESISTOR, C.F. 120K OHMS, 5%, 1/4W	R31	1			1	1
86	076-011	RESISTOR, C.F. 180K OHMS, 5%, 1/4W	R66	1	1		1	1
87	066-850	RESISTOR, C.F. 240K OHMS, 5%, 1/4W	R84	1	1	1	1	1
88								
89	076-012	RESISTOR, C.F. 330K OHMS, 5%, 1/4W	R69,83	2	2	2	2	2
90	066-652	RESISTOR, C.F. 470K OHMS, 5%, 1/4W	R70	1			1	1
91	066-673	RESISTOR, C.F. 1.0 MEGOHM, 5%, 1/4W	R80	1	1	1	1	1
92	066-858	RESISTOR, C.F. 4.7 MEGOHM, 5%, 1/4W	R67	1	1	1	1	1
93								
94								
95	058-251	RESISTOR, VARIABLE, 100K OHMS, 1/2W	R32,50	2	2	2	2	2
96								
97								
98	586-075	INTEGRATED CIRCUIT, QUAD 2-INPUT NAND (7400)	A2,4,7-9,14, 17,18	8	8	8	8	8
99	586-326	INTEGRATED CIRCUIT, HEX INVERTER, (7404)	A16,19	2	2	2	2	2
100	586-325	INTEGRATED CIRCUIT, HEX INVERTER, OPEN COLLECTOR (7405)	A1	1	1	1	1	1
101	586-076	INTEGRATED CIRCUIT, TRIPLE 3-INPUT NAND, (7410)	A3,10,13	3	3	3	3	3
102	586-077	INTEGRATED CIRCUIT, DUAL 4-INPUT NAND, (7420)	A11	1	1	1	1	1
103								
104	586-108	INTEGRATED CIRCUIT, DUAL D FLIP-FLOP (7474)	A15	1	1	1	1	1
105	586-705	INTEGRATED CIRCUIT, QUAD 2-INPUT EXCL. OR (7486)	A5	1	1	1	1	1
106	586-283	INTEGRATED CIRCUIT, 4-BIT BINARY COUNTER (7493)	A12	1	1	1	1	1
107	587-144	INTEGRATED CIRCUIT, DUAL, RETRIG MONO MULTI (9602)	A6	1	1	1	1	1
108								
109	587-478	OP AMP. (LM318H)	A20,21	2	2	2	2	2
110	586-905	DUAL OP AMP. (1458)	A22	1			1	1
111								
112	470-009	SCREW, CAP, 4-40 X 5/16		4	4	4	4	4
113	471-068	SCREW, PAN, 6-32 X 5/16		4	4	4	4	4
114	496-002	NUT, WITH ASSEM WASHER #6		4	4	4	4	4
115								
116	501-169	WASHER, FLAT #4		4	4	4	4	4
117	502-002	WASHER, SPRING LOCK #4		4	4	4	4	4
118								
119								
120	615-124	WIRE, SOLID, INSULATED, #24 AWG, WHITE		A/R	A/R	A/R	A/R	A/R
121								
122	087-388	SILICONE, COMPOUND (DC340)		A/R	A/R	A/R	A/R	A/R



NOTES:

1. ASSEMBLY NO. IS 4050860-06.
2. MARK DASH NO. PER BDI-1.
3. USE ITEM 122 BETWEEN HEATSINK & Q8, Q9, Q10 & Q18.
4. PART NO. 014-862 MAY BE SUBSTITUTED FOR ITEM 19, Q13, 14.

Assembly No. 4050860. Capstan Servo PWA, No. 8



NOTES: UNLESS OTHERWISE SPECIFIED
1. CAPACITANCE VALUES ARE IN MICROFARADS, 50V
2. DIODES ARE TYPE 0I3-5998.
3. RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%.
4. THESE TRANSISTORS TO HAVE HEAT SINK.
5. ALL LOGIC INPUT LEVELS ARE +5V TRUE.
6. PWA IS 4050466-06, A/W REV 'E'.
7. PART NO. 014-882 MAY BE SUBSTITUTED.

INTEGRATED CIRCUIT LIST

REFERENCE DESIGNATION	AMPEX P/N	HYBRID P/N	VOLTAGE PIN +5V	GROUND PIN
A2,3,4,5,8,14,17,18	586-075	7400	14	7
A1,12,13	586-076	7410	14	7
A11	586-077	7420	14	7
A15	586-108	7474	14	7
A20,21	587-478	311 B.H	4,(-12V) 8,(+12V)	NONE
A10	594-283	7493	5	10
A7	586-525	7405	14	7
A6,19	586-526	7404	14	7
A9	586-795	7486	14	7
A22	586-905	1458	4,(-12V) 8,(+12V)	NONE
A16	587-164	9602	16	8

REFERENCE DESIGNATIONS

LAST USED	NOT USED
A22	
C43	C35
Q23	
R100	
CR9	
VR5	
TP7	
TP9	

Schematic No. 4840435H.
Capstan Servo PWA, No. 8

4050778-09 REEL SERVO PWA, NO. 9 REV. R
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

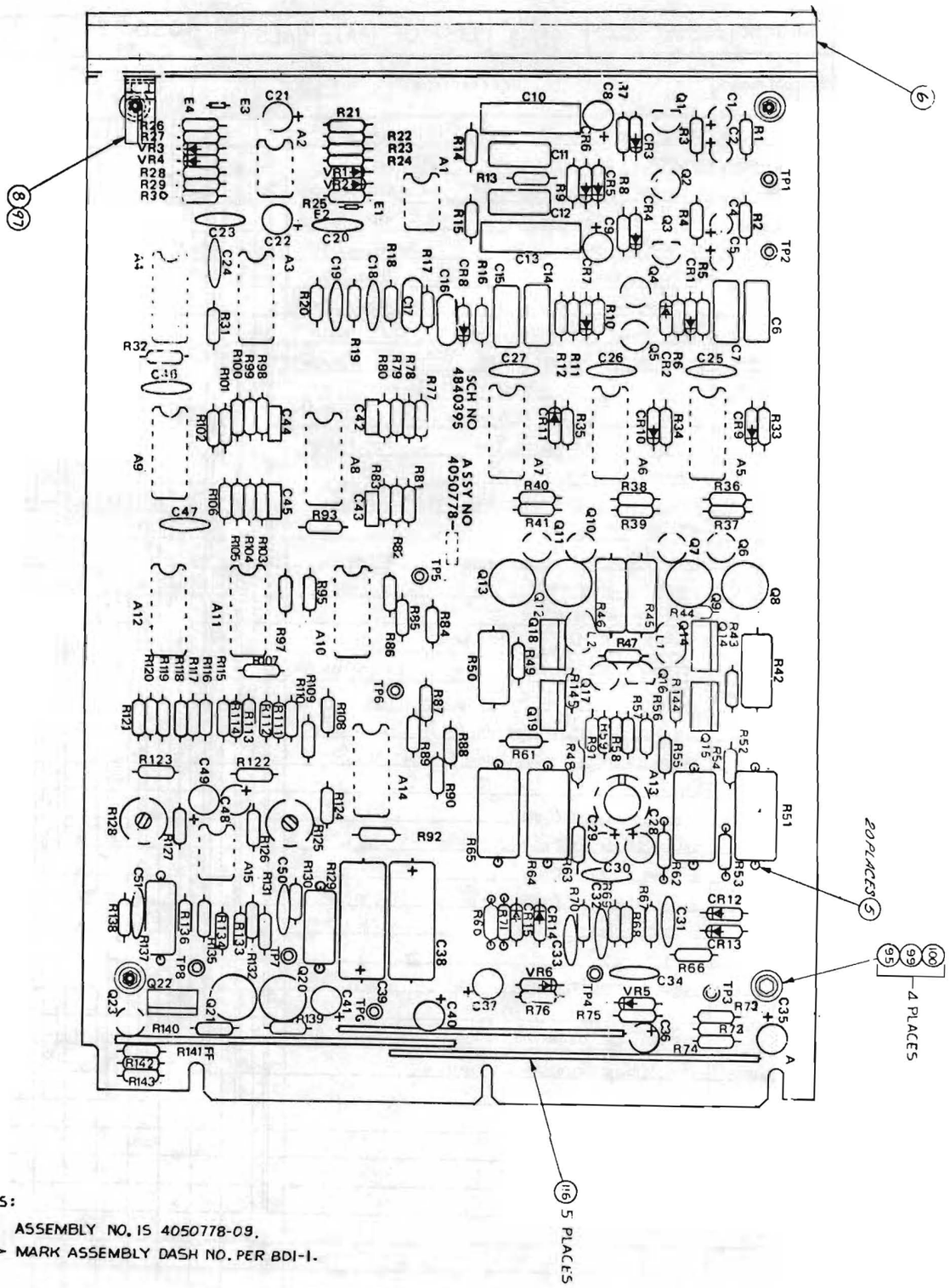
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06	-07	-08	-09
1													
2	4041244-01		SHIELD ASSY, PWA										-
3	4170327-A8		LABEL, PWA										1
4													
5	103307-01		STAND OFF	REF: R51,53,54,60,62, 64,65,71,129,137	12	12	12	12	12	20	20	20	20
6	4041244-A8		SHIELD ASSY, PWA										1
7	4840395		SCHEMATIC		REF	E	F	G	H	H	J	K	L
8	1373277-01		CONTACT, GROUND										1
9													
10													
11	013-359		DIODE, ZENER, 5.1V, 400MW (1N751A)	VR5,6	2	2	2	2	2	2	2	2	2
12	013-383		DIODE, ZENER, 9.1V, 400MW (1N758A)	VR1,2,3,4	4	4	4	4	4	4	4	4	4
13	013-599		DIODE, SWITCHING (1N4531)	CR1-CR11	11	11	11	11	11	11	11	11	11
14	013-878		DIODE, SWITCHING, FAST RECOVERY (1N4935)	CR12,13,14,15	4	4	4	4	4	4	4	4	4
15	579-006		TRANSISTOR, NPN POWER (D44 C11)	Q14,15,18,,19	-	-	-	-	-	-	-	-	4
16	014-247		TRANSISTOR, NPN TO-5 (2N2219)	Q8,13,20,21	4	4	4	4	4	4	4	4	4
17	014-364		TRANSISTOR, PNP TO-5 (2N2905A)	Q9,12	2	2	2	2	2	2	2	2	2
18	014-652		TRANSISTOR, PNP TO-92 (2N3906)	Q6,11	2	2	2	2	2	2	2	2	2
19	014-653		TRANSISTOR, NPN TO-92 (2N3904)	Q2,4,5,7,10,17,23	5	7	7	7	7	7	7	7	7
20	580-760		TRANSISTOR, NPN POWER (D44C9)	Q14,15,18,19,22		5	5	5	5	5	5	5	-
21	580-156		TRANSISTOR, J-FET, P-CHAN (2N5461)	Q1,3,16	3	3	3	3	3	3	3	3	3
22	579-014		TRANSISTOR, NPN POWER (D44H11)	Q22	-	-	-	-	-	-	-	-	1
23	051-971		INDUCTOR, 56uH, 10%	L1,2	2	2	2	2	2	2	2	2	2
24	064-152		CAPACITOR, CERAMIC, DISC, .001uF 10% 50V	C42,43,44,45	4	4	4	4	4	4	4	4	4
25	034-439		CAPACITOR, MICA, 130pF, 5%, 500V	C16,17	2	2	2	2	2	2	2	2	2
26	063-027		CAPACITOR, ALUM., TUBULAR, 25uF+75-10%, 50V	C38,39	2	2	2	2	2	2	2	2	2
27	064-116		CAPACITOR, CERAMIC, DISC, .01uF, +80-20%	C18-20,23-27, 30-34,46,47,50,51	17	17	17	17	17	17	17	17	17
28	037-790		CAPACITOR, TANT DIPPED, 2.2uF, 20%, 20V	C8,9	2	2	2	2	2	2	2	2	2
29	037-931		CAPACITOR, TANT., DIPPED, 6.8uF, 20%, 35V	C28,29	2	2	2	2	2	2	2	2	2
30	037-591		CAPACITOR, TANT., DIPPED, 1.0uF, 20%, 35V	C1,2,4,5	4	4	4	4	4	4	4	4	4
31	037-954		CAPACITOR, TANT., DIPPED, 22uF, 20%, 15V	C21,22,40,41	4	4	4	4	4	4	4	4	4
32	037-962		CAPACITOR, TANT., DIPPED, 4.7uF, 20%, 10V	C48,49	2	2	2	2	2	2	2	2	2
33	067-041		CAPACITOR, TANT., DIPPED, 68uF, 20%, 6V	C35,36,37	3	3	3	3	3	3	3	3	3
34													
35	055-157		CAPACITOR, MYLAR, .1uF, 10%, 50V	C10,13	2	2	2	2	2	2	2	2	2
36	069-047		CAPACITOR, MYLAR, .027uF, 10%, 50V,	C6,15	2	2	2	2	2	2	2	2	2
37													

AMPEX \| Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO. 92739	LIST OF MATERIALS	LM-4050778 SHEET 2	R

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06	-07	-08	-09
38	069-051	CAPACITOR,MYLAR,.039uF,10%,50V	C7,14	2	2	2	2	2	2	2	2	2
39	055-163	CAPACITOR,MYLAR, .0033uF,10%,50V	C11,12	2	2	2	2	2	2	2	2	2
40	066-847	RESISTOR, C.F., 33K OHM, 1W, 5%	R3,4,25,29,73,122, 123							7	7	7
41	059-561	RESISTOR,W.W., 1Ω,10%,2W	R129,137	2	2	2	2	2	2	2	2	2
42	041-296	RESISTOR,COMP.,12Ω,10%,2W	R51,54,64,65	4	4	4	4	4	4	4	4	4
43	041-143	RESISTOR,COMP.,680Ω,10%,1W	R42,45,46,50	4	4	4	4	4	4	4	4	4
44	066-859	RESISTOR,C.F. 240Ω 5% 1/4W	R113	1	1	1	1	1	1		1	1
45	066-664	RESISTOR,C.F. 510Ω 5% 1/4W	R112	1	1	1	1	1	1		1	1
46	066-810	RESISTOR,C.F. 10Ω, 5%, 1/4W	R132,134	2	2	2	2	2	2	2	2	2
47	066-660	RESISTOR,C.F., 2Ω, 5%,1/4W	R48,52,53,55,60-62,71,141	9	9	9	9	9	9	9	9	9
48	066-812	RESISTOR,C.F., 100Ω,5%,1/4W	R71,30,43,44,47,49,139,140	8	8	8	8	8	8	8	8	8
49	066-661	RESISTOR,C.F., 120Ω,5%,1/4W	R33,34,35,16	4	4	4	4	4	4	4	4	4
50	066-663	RESISTOR,C.F., 220Ω,5%,1/4W	R115,118	2	2	2	2	2	2	2	2	2
51	066-814	RESISTOR,C.F., 270Ω,5%,1/4W	R117,121	2	2	2	2	2	2	2	2	2
52	076-045	RESISTOR,C.F., 75Ω, 5%,1/4W	R74	1	1	1	1	1	1		1	1
53	066-838	RESISTOR,C.F. 330Ω 5% 1/4W	R114	1	1	1	1	1	1		1	1
54	066-872	RESISTOR,C.F., 360Ω,5%,1/4W	R 107	1	1	1	1	1	1		1	1
55	066-817	RESISTOR,C.F., 430Ω,5%,1/4W	R116,120	2	2	2	2	2	2	2	2	2
56	066-839	RESISTOR,C.F., 560Ω,5%,1/4W	R75,76,	2	2	2	2	2	2	2	2	2
57	066-865	RESISTOR,C.F., 1.0KΩ,5%,1/4W	R119,142 R 12,36,38-40,110,111,	9	9	9	9	9	9	9	9	9
58	066-720	RESISTOR,C.F., 3.3KΩ,5%,1/4W	R1,2,133,135	4	4	4	4	4	4	4	4	4
59	066-668	RESISTOR,C.F., 4.7KΩ,5%,1/4W	R130,138	2	2	2	-	-	-	-	-	-
60	066-843	RESISTOR,C.F., 6.2KΩ,5%,1/4W	R6,11,31,32,37,41,84-90,92, 95,96,97,102,109,143	20	20	-	-	-	-	-	-	-
61	066-818	RESISTOR, C.F., 470Ω, 5%, 1/4W	R144,145	2	2	2	2	2	2	2	2	2
62	066-830	RESISTOR,C.F., 10K ,5%,1/4W	R5, 9,10,91,94	5	5	-	-	-	-	-	-	-
63	066-831	RESISTOR,C.F., 11KΩ,5%,1/4W	R58	1	1	1	1	1	1	1	1	1
64	066-844	RESISTOR,C.F., 16KΩ,5%,1/4W	123 R24,26,28,63,66,67,70,122,	9	9	-	-	-	-	-	-	-
65	066-832	RESISTOR,C.F., 19KΩ,5%,1/4W	R72	1	1	1	1	1	1	1	1	1
66	066-712	RESISTOR,C.F., 22KΩ,5%,1/4W	R108	1	1	1	1	1	1	1	1	1
67	066-958	RESISTOR, C.F. 75K OHMS, 5%,1/4W	R122, 123		2	2	2	2	2	1	-	-
68	066-847	RESISTOR,C.F.,33KΩ,5%,1/4W	R3,4,25,29,73	5	5	5	5	5	5	1	-	-
69	066-860	RESISTOR,C.F., 39KΩ,5%,1/4W	R68	1	1	1	1	1	1	1	1	1
70	066-717	RESISTOR,C.F., 47KΩ,5%,1/4W	R56	1	1	1	1	1	1	1	1	1
71	076-009	RESISTOR,C.F., 68KΩ,5%,1/4W	R22	1	1	1	-	-	-	1	-	-
72	066-866	RESISTOR, C.F. 27K OHMS, 5%,1/4W	R130,138		2	2	2	2	2	1	-	-
73	066-849	RESISTOR,C.F., 100KΩ,5%,1/4W	R126,127,131,136	4	4	4	4	4	4	4	4	4
74	076-010	RESISTOR,C.F., 130KΩ,5%,1/4W	R69	1	1	1	1	1	1	1	1	1
75	076-011	RESISTOR,C.F., 180KΩ,5%,1/4W	R79	1	1	1	1	1	1	1	1	1
76	066-913	RESISTOR,C.F., 220KΩ,5%,1/4W	R14,15,124	3	3	3	3	3	3	3	-	-
77	066-850	RESISTOR,C.F., 240KΩ,5%,1/4W	R19,20	2	2	2	2	2	2	2	2	-
78	076-012	RESISTOR,C.F., 330KΩ,5%,1/4W	R23,27	2	2	2	2	2	2	2	2	2
79	066-652	RESISTOR,C.F., 470KΩ,5%,1/4W	R13,99,100	3	3	3	3	3	3	3	-	-
80	066-676	RESISTOR,C.F., 560KΩ,5%,1/4W	R77	1	1	1	1	1	1	1	1	1
81	066-844	RESISTOR, C.F., 16KΩ, 5%, 1/4W	R24,26,28,63, 66,67,70		7	-	-	-	-	7	-	-
82	066-843	RESISTOR, C.F. 6.2K OHMS, 5%, 1/4W	R6,11,31,32,37,41,84-90, 92,95,97,102,109,143			19	19	19	-	-	-	-

AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO. 92797 | LIST OF MATERIALS | LM-4050778 SHEET 3 | R

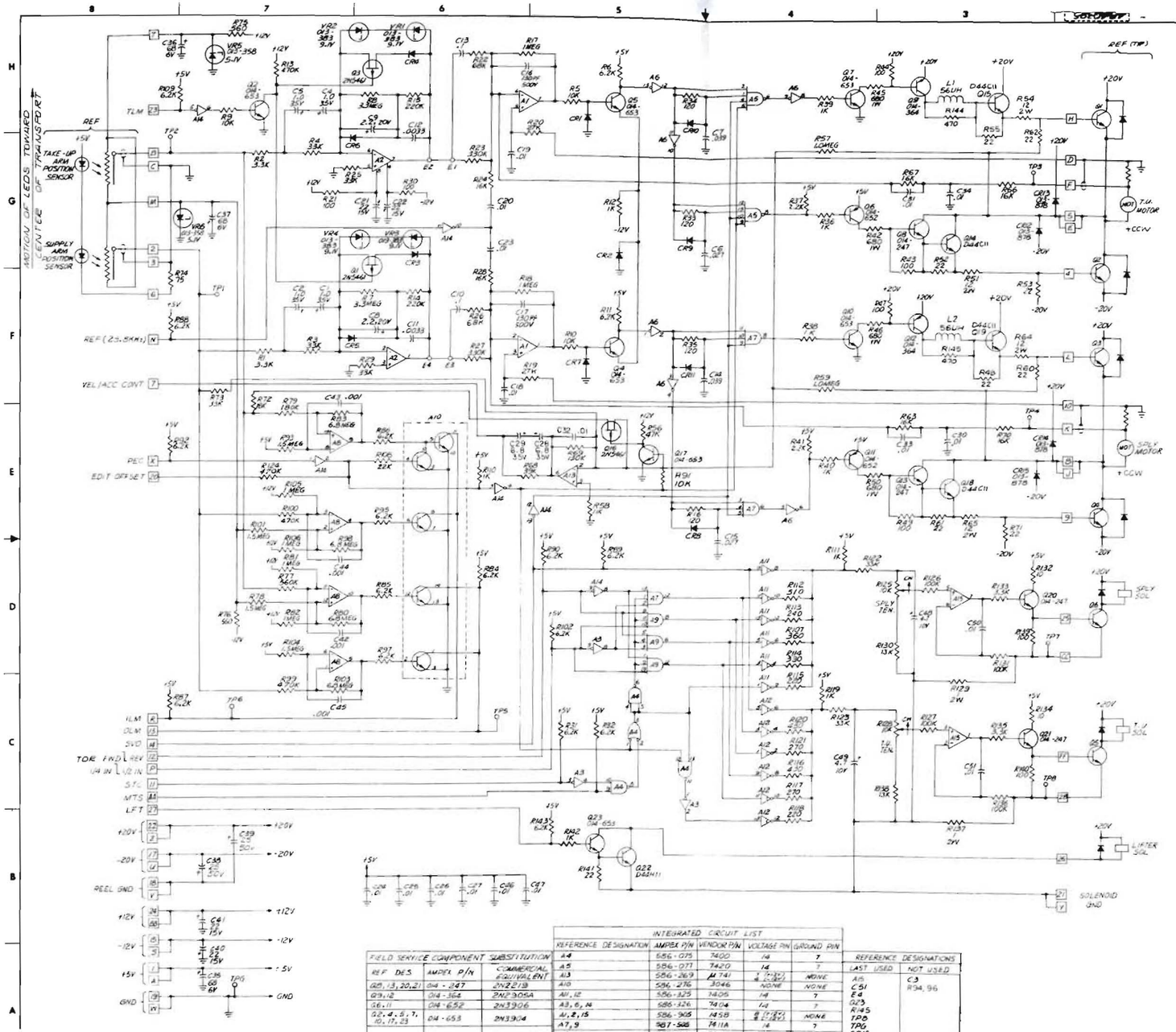
ITEM NO.	PART NUMBER		DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06	-07	-08	-09
83	066-830	RESISTOR, C.F. 10K OHMS, 5%, 1/4W		R5,9,10,91	4	4	4	4	4	4	4	4	4
84	066-673	RESISTOR, C.F., 1.0MEG, 5%, 1/4W		R17,18,81,82,105,106	6	6	6	-	-	-	-	-	-
85	076-014	RESISTOR, C.F., 1.5MEG, 5%, 1/4W		R57,59,78,93,101,104	6	6	6	-	-	-	-	-	-
86	076-015	RESISTOR, C.F. 3.3MEG, 5%, 1/4W		R7,8	2	2	2	2	2	2	2	2	2
87	041-789	RESISTOR, COMP, 6.8MEG, 5%, 1/4W		R80,83,98,103	4	4	4	4	4	4	4	4	4
88	058-977	RESISTOR, VARIABLE, 10KΩ		R125,128	2	2	2	2	2	2	2	2	2
89	066-844	RESISTOR, C.F. 16K OHMS, 5%, 1/4W		R24,28,63,66,67,70			6	6	6	6	6	6	6
90	076-009	RESISTOR, C.F. 68K OHMS, 5%, 1/4W		R22,26			2	2	2	2	2	2	2
91	066-864	RESISTOR, C.F., 13K OHM, ¼W, 5%		R130,138							2	2	2
92	280-998	PAD, TRANSISTOR MTG. (TO-5)	REF: 08,9,12,13,20,21		6	6	6	6	6	6	6	6	6
93	066-673	RESISTOR, C.F. 1.0 MEG, 5%, 1/4W		R17,18 57,59,81, 82,105,106				8	8	8	8	8	8
94	076-014	RESISTOR, C.F. 1.5 MEG, 5%, 1/4W		78,93,101,104				4	4	4	4	4	4
95	470-009	SCREW, CAP, 4-40 X 5/16			4	4	4	4	4	4	4	4	4
96	066-843	RESISTOR C.F. 6.2K Ω, 5%, 1/4W		R6,11,31,32,84-90,92, 95,97,102,109,143						17	17	17	17
97	496-004	NUT, KEP 4-40							1	1	1		1
98	066-689	RESISTOR, C.F. 2.2K Ω, 5%, 1/4W		R37,41						2	2	2	2
99	501-169	WASHER, FLAT, SM. PATTERN #4			4	4	4	4	4	4	4	4	4
100	502-002	WASHER, SPRING LOCK, #4			4	4	4	4	4	4	4	4	4
101	066-913	RESISTOR, C.F., 220K OHM, 5%, 1/4W,		R14,15								2	2
102	066-652	RESISTOR, C.F., 470K, OHM, 5%, 1/4W		R13,99,100,124								4	4
103	586-269	INTEGRATED CIRCUIT, OP. AMP (μ741)		A13	1	1		1	1	1	1	1	1
104	586-905	INTEGRATED CIRCUIT, OP. AMP, DUAL (1458)		A1,A2,A15	3	3	3	3	3	3	3	3	3
105	587-714	INTEGRATED CIRCUIT, OP. AMP., QUAD (LM3900N)		A8	1	1		1	1	1	1	1	1
106													
107	586-075	INTEGRATED CIRCUIT (7400)		A4	1	1		1	1	1	1	1	1
108	586-326	INTEGRATED CIRCUIT (7404)		A3,6,14	3	3	3	3	3	3	3	3	3
109	586-325	INTEGRATED CIRCUIT (7405)		A11,12	2	2	2	2	2	2	2	2	2
110	587-505	INTEGRATED CIRCUIT (7411)		A7,A9	2	2	2	2	2	2	2	2	2
111	586-077	INTEGRATED CIRCUIT (7420)		A5	1	1	1	1	1	1	1	1	1
112													
113	586-276	INTEGRATED CIRCUIT, TRANSISTOR ARRAY (3046)		A10	1	1	1	1	1	1	1	1	1
114													
115	066-866	RESISTOR, C.F. 27K OHM, 5%, ¼W		R19,20	-	-	-	-	-	-	-	-	2
116	615-046	WIRE, SOLID, INSULATED, #24 AWG, WHITE			A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R



NOTES:

1. ASSEMBLY NO. IS 4050778-09.
2. MARK ASSEMBLY DASH NO. PER BDI-1.

Assembly No. 4050778. Reel Servo PWA, No. 9



NOTES UNLESS OTHERWISE SPECIFIED

1. CAPACITANCE VALUES ARE IN MICROFARADS. 50V.
2. DIODES ARE TYPE DI3-599.
3. RESISTANCE VALUES ARE IN OHMS, 1/4 W, 5%.
4. PWA 19 4850778-09

INTEGRATED CIRCUIT LIST

REFERENCE DESIGNATION	AMPEX P/N	VENDOR P/N	VOLTAGE PIN	GROUND PIN
A4	556-075	7400	14	7
A5	556-077	7420	14	7
A13	556-269	µA 741	8 (+12V) 4 (-12V)	NONE
A18	594-276	3046	NONE	NONE
A11, 12	556-325	7405	14	7
A3, 6, 16	586-326	7404	14	7
A1, 2, 15	586-305	1458	8 (+12V) 4 (-12V)	NONE
A7, 9	587-586	7811A	14	7
A8	587-774	3900	14	7

FIELD SERVICE COMPONENT SUBSTITUTION

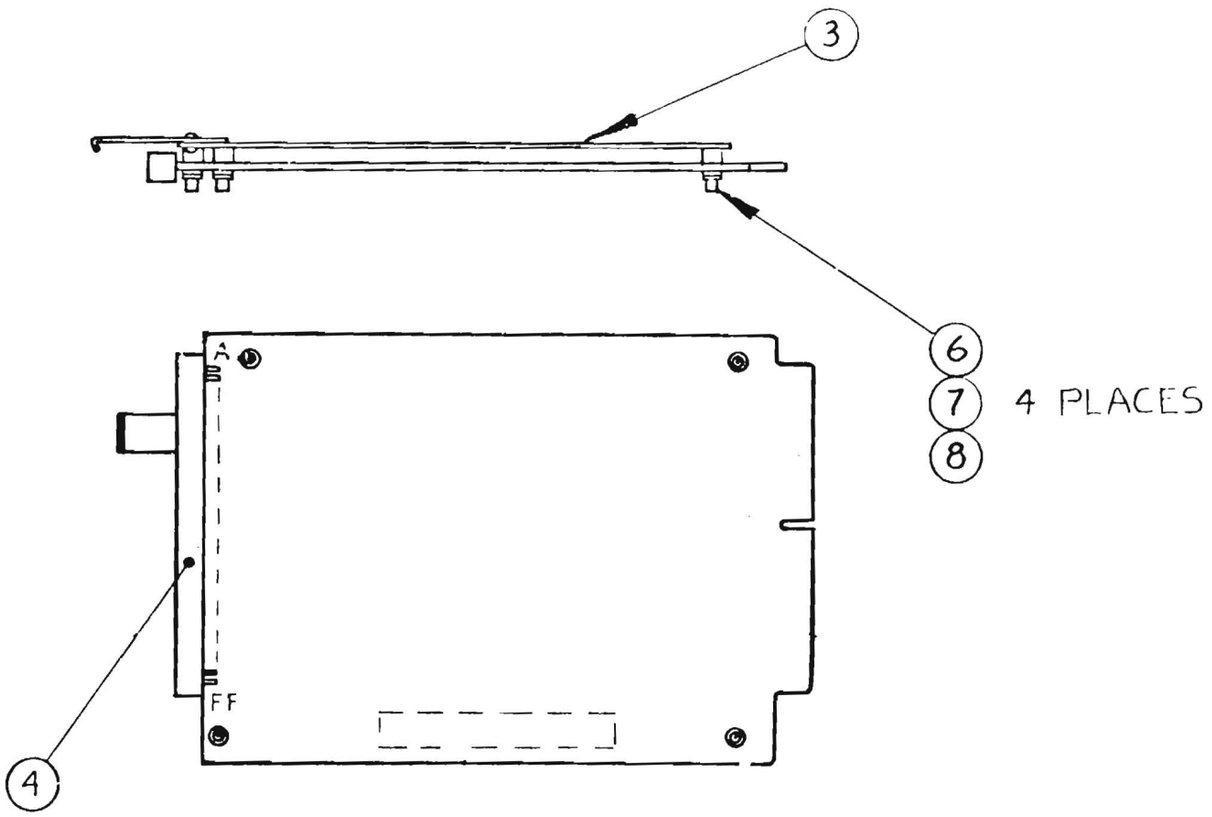
REF DES	AMPEX P/N	COMMERCIAL EQUIVALENT
Q8, 13, 20, 21	014-247	2N2219
Q9, 12	014-364	2N2905A
Q6, 11	014-652	2N3906
Q2, 4, 5, 7, 10, 17, 23	014-653	2N3904

REFERENCE DESIGNATIONS

LAST USED	NOT USED
A16	C3
C51	R34, 96
E4	
Q23	
R145	
TP9	
TP6	
CR15	
VR6	
L2	

AMPEX 4890407-02

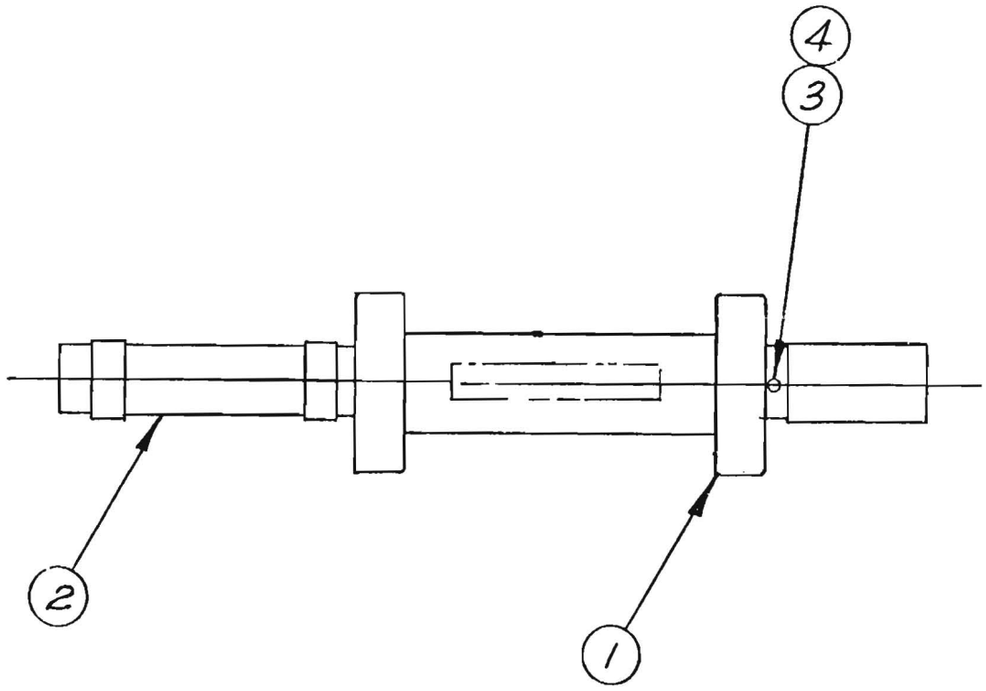
Schematic No. 4840395L.
Reel Servo PWA, No. 9



4	8	502-002	WASHER , LOCK , SPLIT , #4
4	7	501-169	WASHER , FLAT , #4 , SMALL PATTERN
4	6	470-009	SCREW , CAP , HEX SOC., 4-40 X .31 LG
	5		
1	4	139-842	CONN , P.C. , 28 PIN DUAL
1	3	4041255-01	SHIELD ASSY, P.W.B. EXTENDER
	2		
	1		
01	ITEM NO.	PART NUMBER	DESCRIPTION

PARTS LIST

Assembly No. 4050800. Extender PWA



-01	ITEM NO.	PART NUMBER		DESCRIPTION
2	1	4200075-01		BEARING, BALL
1	2	4210388-01		SHAFT, CAPSTAN
A/R	3	018-450		ADHESIVE, LOCTITE #290
1	4	406-020		PIN, SPRING, .062 DIA x .25 LG

PARTS LIST

Assembly No. 4041264. Capstan Shaft

4041229-02 HEAD GATE ASSEMBLY REV. D
NEXT HIGHER ASSEMBLY 4020434

ITEM NO.	PART NUMBER	D DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1	4600095-01	SHIELD HEAD FRONT		1	1
2	4290955-01	GATE, HEAD		1	1
3	4120036-01	CATCH, HEAD GATE		1	1
4					
5					
6	470-418	SCREW, CAP, HEX SOC #2-56 x.750 LG		1	1
7	501-155	WASHER PLAIN #2		2	2
8	502-001	WASHER, LOCK #2		1	1
9	492-007	NUT, PLAIN, HEX. #2-56		1	1
10	352-216	SPRING EXTENSION .125 OD x 1.00 LG		1	1
11	225-278	TAPE SINGLE SIDED 1/4 WD.x.062THK.X .75 LG		1	1
12	225-353	TAPE DOUBLE SIDED		A/R	A/R

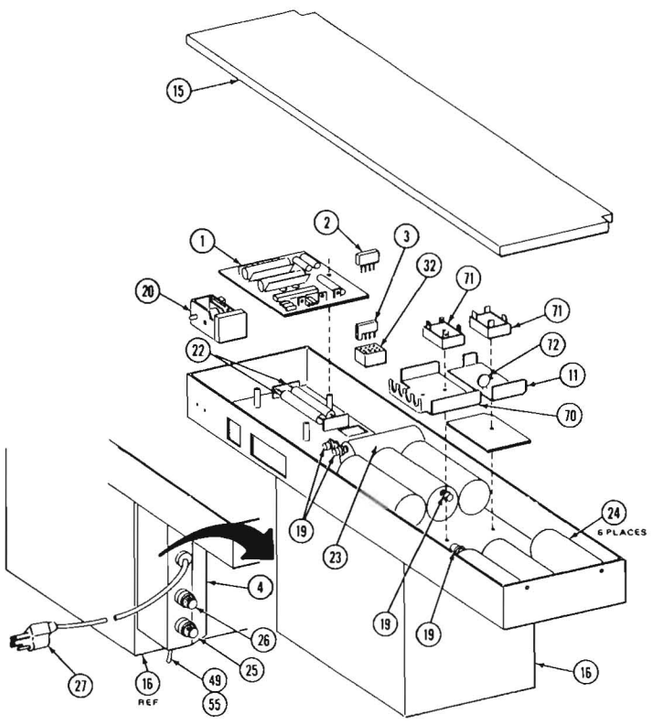
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER									
				-01	-02	-03	-04	-05	-06	-07	-08	-09	-10
1	4050794-03	PWA, POWER SUPPLY & DYNAMIC BRAKES		1	1	1	1	1	1	1	1	1	1
2	1374214-AA	JUMPER PLUG		1	1	1	1	1	1	1	1	1	1
3	1374214-AB	JUMPER PLUG		1	1	1	1	1	1	1	1	1	1
4	4041266-02	BRACKET, POWER SWITCH		1	1	1	1	1	1	1	1	1	1
5	4050794-01	PWA,POWER SUPPLY & DYNAMIC BRAKES		1	1	1	1	1	1	1	1	1	1
6	4050813-01	HARNESS, POWER SUPPLY		1	1	1	1	1	1	1	1	1	1
7	4170331-01	INSULATOR, DIODE BRACKET		1	1	1	1	1	1	1	1	1	1
8	4260538-01	BRACKET, DIODE MTG.		1	1	1	1	1	1	1	1	1	1
9	4260539-01	BRACKET,POWER SWITCH		1	1	1	1	1	1	1	1	1	1
10	4260540-01	BRACKET,CAPACITOR MTG		2	2	2	2	2	2	2	2	2	2
11	4260558-02	BRACKET,CAPACITOR MTG		1	1	1	1	1	1	1	1	1	1
12	~~4170334-01~~	~~INSULATOR, POWER TRANSFORMER~~		1	1	1	1	1	1	1	1	1	1
13	~~4170335-01~~	~~INSULATOR, POWER SUPPLY CHASSIS~~		1	1	1	1	1	1	1	1	1	1
14	4290931-02	CHASSIS,POWER SUPPLY		1	1	1	1	1	1	1	1	1	1
15	4290932-02	COVER,POWER SUPPLY		1	1	1	1	1	1	1	1	1	1
16	4580064-01	TRANSFORMER,POWER		1	1	1	1	1	1	1	1	1	1
17	4840412	SCHEMATIC		REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
18	4170332-01	INSULATOR, ELECT. REAR COVER		1	1	1	1	1	1	1	1	1	1
19	013-231	DIODE,POWER (IN1200)	CR1-4	4	4	4	4	4	4	4	4	4	4
20	020-826	RELAY	K1	1	1	1	1	1	1	1	1	1	1
21	059-556	RESISTOR,W.W. .1Ω,1%,10W	R1,2	2	2	2	2	2	2	2	2	2	2
22	059-582	RESISTOR, W.W. .1 OHMS, 5% 10W	R1,2		2	2	2	2	2	2	2	2	2
23	063-076	CAPACITOR,AL. ELECT. 9200uF,15V	C1	1	1	1	1	1	1	1	1	1	1
24	063-157	CAPACITOR,AL. ELECT. 4000uF,40V	C2-7	6	6	6	6	6	6	6	6	6	6
25	070-001	FUSE, 3A FAST BLO.	F2	1	1	1	1	1	(-)	1	1	1	1
26	070-020	FUSE, 5A SLOW BLO.	F1	1	1	1	1	1	1	1	1	1	1
27	084-063	POWER CORD, 8' (W/MOLDED CONNECTOR)		1	1	1	1	1	1	1	1	1	1
28	4600159-01	SHIELD, TRANSFORMER SLEEVE		1	1	1	1	1	1	1	1	1	1
29	4600160-01	SHIELD, TRANSFORMER BOTTOM		1	1	1	1	1	1	1	1	1	1
30	070-411	FUSE POST, BODY ONLY		2	2	2	2	2	2	2	2	2	2
31	119-374	SWITCH,TOGGLE		1	1	1	1	1	1	1	1	1	1
32	167-025	CONNECTOR BLOCK, CHASSIS MOUNT 12 POS'N		1	1	1	1	1	1	1	1	1	1
33	166-225	CONNECTOR PART, CONTACT SOCKET (16-18 AWG)		11	11	11	11	11	11	11	11	11	11
34	171-238	CONNECTOR,FEMALE,QUICK DISCONNECT		6	6	1	1	1	1	1	1	1	1
35	187-252	CONNECTOR,FEMALE,QUICK DISCONNECT		2	2	1	1	1	1	1	1	1	1
36	4600161-01	SHIELD, TRANSFORMER TOP		1	1	1	1	1	1	1	1	1	1
37	225-006	TAPE, DOUBLE SIDED 1.00 WD		A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4020406 SHEET 2	AD

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06	-07	-08	-09	-10
38	302-379	TIE STRAP		A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
39	172-009	SOLDER LUG		9	9	9	9	9	9	9	9	9	9
40	260-004	GROMMET		1	1	1	1	1	1	1	1	1	1
41	264-019	BUSHING,STRAIN RELIEF		1	1	1	1	1	1	1	1	1	1
42	302-335	TIE STRAP,HARNESS		A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
43	470-010	SCREW, CAP HEX SOC, 4-40 X .37 LG		4	4	4	4	4	4	4	4	4	4
44	~~471-062~~	~~SCREW,MACH., X-REC 4-40 X .375~~											
45	470-017	SCREW, CAP, HEX SOC 6-32 X .31 LG		2	2	2	2	2	2	2	2	2	2
46	470-020	SCREW, CAP, HEX SOC 6-32 X .50 LG		2	2	2	2	2	2	2	2	2	2
47	~~471-078~~	~~SCREW,MACH., X-REC 8-32 X .375~~											
48	172-012	SOLDER LUG,#6			4	4	4	4	4	4	4	4	4
49	119-440	SWITCH, TOGGLE			1	1	1	1	1	1	1	1	1
50	471-080	SCREW,MACH., X-REC 8-32 X .50 LG		4	4	4	4	4	4	4	4	4	4
51	~~471-081~~	~~SCREW,MACH., X-REC 8-32 X .62~~											
52	470-027	SCREW, CAP, HEX SOC 8-32 X .38 LG		3	3	3	3	3	1	1	1	1	1
53	502-027	WASHER, LOCK, INTERNAL TOOTH #10				4	14	14	8	8	8	8	8
54	476-998	SCREW,SELF TAPPING #6		4	4	4	4	4	4	4	4	4	4
55	121-249	LOCK RING, POWER SWITCH		1	1	1	1	1	1	1	1	1	1
56	498-582	NUT, HEX POWER SWITCH		1	1	1	1	1	1	1	1	1	1
57	502-415	WASHER, LOCK, POWER SWITCH		1	1	1	1	1	1	1	1	1	1
58	496-001	NUT WITH ASSEMBLED WASHER 8-32		3	3	3	3	3	3	3	3	3	3
59	496-002	NUT WITH ASSEMBLED WASHER 6-32		1	1	1	1	1	1	1	1	1	1
60	496-004	NUT WITH ASSEMBLED WASHER 4-40		1	1	1	1	1	1	1	1	1	1
61	~~4050791-04~~	~~PWA, POWER SUPPLY AND DYNAMIC BRAKES,~~											
62	501-009	WASHER,FLAT,SMALL PATTERN #6		2	2	2	2	2	3	3	3	3	3
63	501-169	WASHER,FLAT,SMALL PATTERN #4		3	3	3	3	3	3	3	3	3	3
64	501-205	WASHER,FLAT,SMALL PATTERN #8		4	4	4	4	4	8	8	8	8	8
65	502-002	WASHER,SPRING LOCK #4		3	3	3	3	3	3	3	3	3	3
66	502-003	WASHER,SPRING LOCK #6		3	3	3	3	3	3	3	3	3	3
67	502-004	WASHER,LOCK #8		4	4	4	4	4	4	4	4	4	4
68	503-016	WASHER SHOULDER #4		1	1	1	1	1	1	1	1	1	1
69	503-322	WASHER,SHOULDER #8		1	1	1	1	1	1	1	1	1	1
70	4260540-03	BRACKET, CAPACITOR MTG					1	1	1	1	1	1	1
71	581-449	DIODE ASSY,FULL WAVE BRIDGE (2N2369A)	A1,2	2	2	2	2	2	2	2	2	2	2
72	030-145	CAPACITOR, CER MONO, 0.1μF, 50V,20%	C8					1	1	1	1	1	1
73	615-019	WIRE, BARE, SOLID, 18 AWG			A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
74		WIRE,PVC, 18 AWG		A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
75		WIRE,PVC, 20 AWG		A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
76	070-412	CAP FUSE 3 AG						2	2	2	2	2	2
77	6000035-01	LABEL, IDENTIFICATION		1	1	1	1	1	1	1	1	1	1
78	070-007	FUSE, 5 AMP FAST BLO	F2					1	1	1	1	1	1
79	030-446	CAPACITOR, DISC, CER. .005 uF, 3000V	C9,10				2	2	2	2	2	2	2
80	068-025	INDUCTOR, 100uH, 5%	L1					1	1	1	1	1	1
81	4840458	SCHEMATIC						(-)	A	(-)	B	C	D
82	4050882-03	PWA, POWER SUPPLY & DYNAMIC BRAKES						1	+	1	1	1	1

AMPEX \| Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4020406 SHEET 3	AD

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 06	-07	-08	-09	-10
83	4050912-01	HARNESS, POWER COMMON		1	1	1	1	1
84	4290931-03	CHASSIS, POWER SUPPLY		1	1	1	1	1
85	501-008	WASHER, PLAIN, #4		1	1	1	1	1
86	502-091	WASHER, LOCK, INT TOOTH, 1/2"		2	2	2	2	2
87	070-424	FUSE, BUSS MDX-5	F1					1
88	470-032	SCREW, CAP, HEX SOC, #8-32 X .88 LG		1	1	1	1	1
89	470-033	SCREW, CAP, HEX SOC, #8-32 X 1.00 LG		1	1	1	1	1
90								
91	600-161	SLEEVING, TFE, FLEX, CLEAR, #22		A/R	A/R	A/R	A/R	A/R
92	4041266-03	BRACKET, POWER SWITCH						1
93	4290932-04	COVER, POWER SUPPLY						1
94								
95	581-651	VARISTOR, TRANSIENT PROTECTION	RV1,2					2
96	172-012	SOLDER LUG	REF 95					1
97	471-069	SCREW, MACH. X-REC 6/32 X .375	REF 95					1
98	501-009	WASHER, FLAT SMALL PATTERN #6	REF 95					1

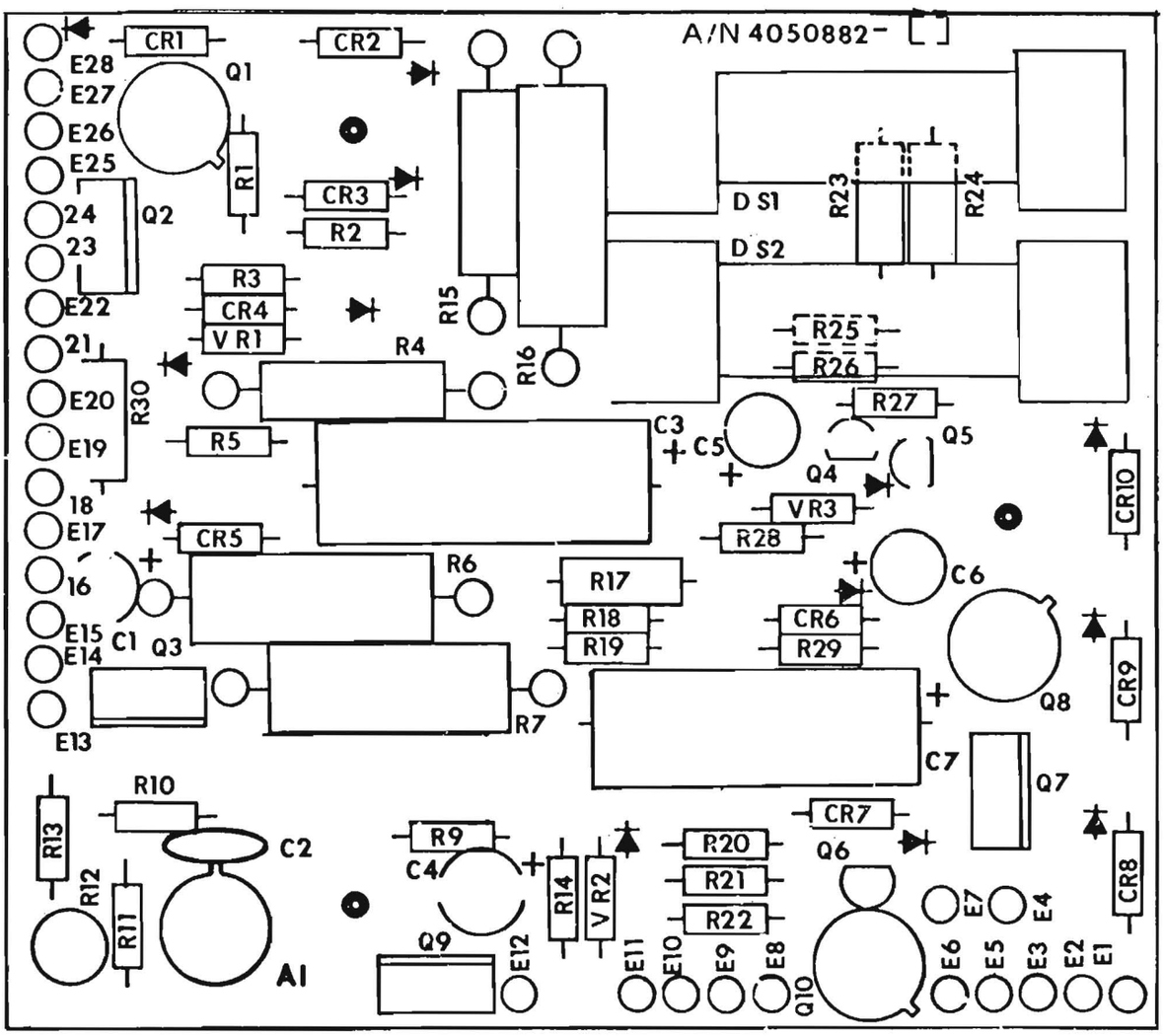


4050882-03 POWER SUPPLY AND DYNAMIC BRAKES PWA REV. F
NEXT HIGHER ASSEMBLY 4020406

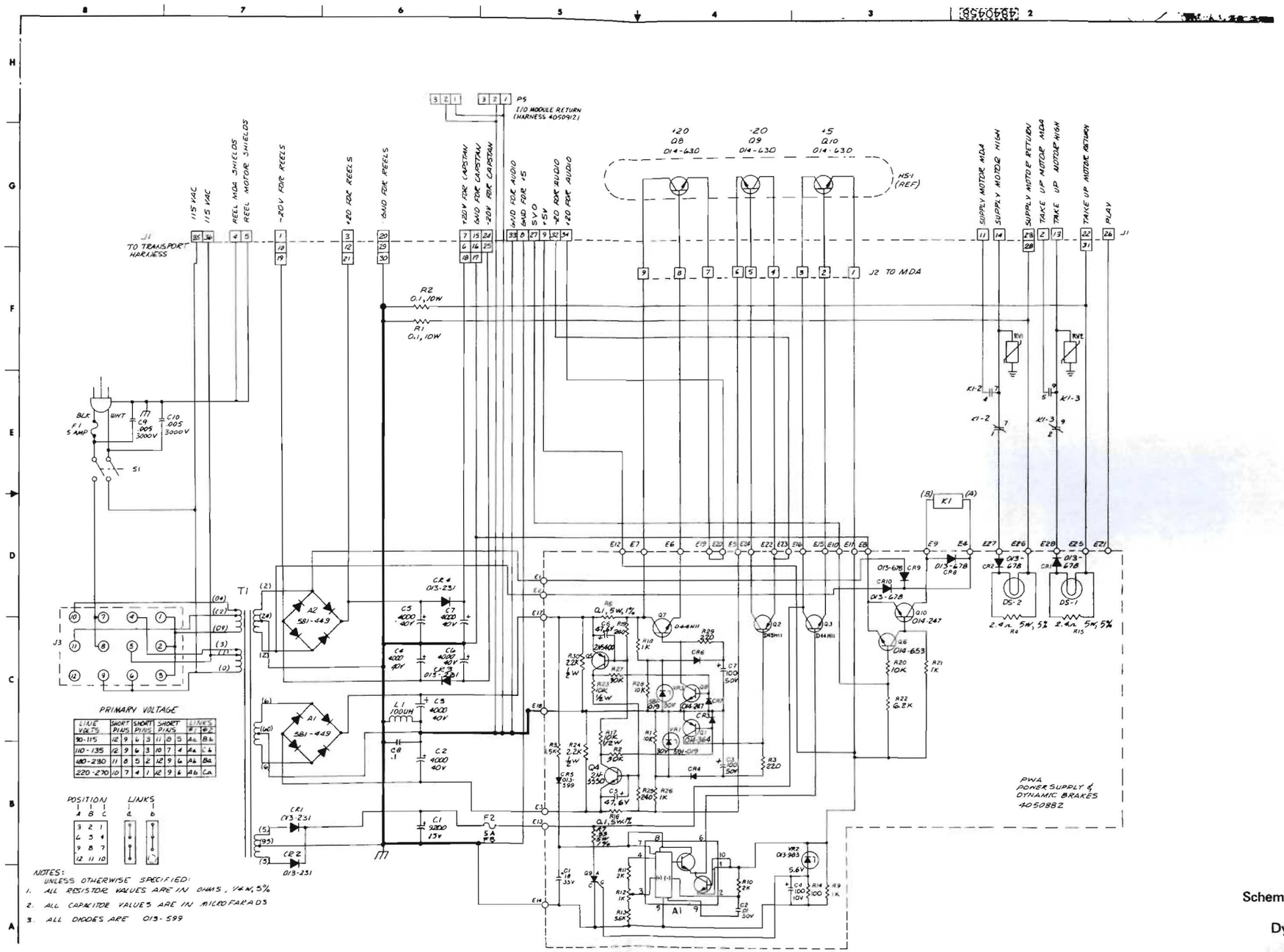
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
1						
2	4840458	SCHEMATIC		"B"	(D)	(D)
3	103307-01	STAND OFF, RESISTOR MTG REF: R6,16,8,7,4,15		12	-	-
4	103307-01	STANDOFF, RESISTOR MTG REF: R4,6,7,15,16			10	10
5						
6	013-983	DIODE, ZENER 5.6V 5% (1N752A)	VR2	1	1	1
7						
8	581-019	DIODE, ZENER, 30V 10% (1N 972A)	VR1,3	2	2	2
9	013-599	DIODE, SWITCHING (1N4531)	CR3,4,5,6,7	5	5	5
10	013-678	DIODE, 1 AMP (1N4385)	CR1,2,8,9,10	5	5	5
11						
12						
13	014-247	TRANSISTOR, NPN (2N2219)	Q8,10	2	2	2
14	014-364	TRANSISTOR, PNP (2N2905A)	Q1	1	1	1
15						
16	014-653	TRANSISTOR, NPN (2N 3904)	Q6	1	1	1
17						
18						
19	580-760	TRANSISTOR, NPN (D44C9)	Q3,7	2	2	-
20	580-761	TRANSISTOR, PNP (D45C9)	Q2	1	1	-
21	580-568	TRANSISTOR, PNP (2N5400)	Q5	1	1	1
22	580-800	TRANSISTOR, NPN (2N5550)	Q4	1	1	1
23	580-799	SCR (C122F)	Q9	1	1	1
24	579-014	TRANSISTOR, NPN (D44H11)	Q3,7			2
25	579-015	TRANSISTOR, NPN (D45H11)	Q2			1
26	060-307	LAMP, (#211-2)	DS1,2	2	2	2
27						
28	037-935	CAPACITOR, TANT, 18uF, 35V	C1	1	1	1
29	037-298	CAPACITOR, TANT, DIPPED, 47uF, 6V, 20%	C5,6	2	2	2
30	037-894	CAPACITOR, TANT, DIPPED, 100uF, 10V, 20%	C4	1	1	1
31	063-031	CAPACITOR, ALUM, TUBULAR, 100uF, 50V	C3,7	2	-	-
32	064-116	CAPACITOR, CERAMIC, DISC, .01uF, 50V	C2	1		1
33	063-332	CAPACITOR, AL, TUBULAR 100uF, 50V	C3,7		2	2
34						
35						
36	041-052	RESISTOR, CC 2.2K OHM, 10%, 1/2W	R24,30	2	2	2
37	041-014	RESISTOR, CC 10K OHM, 5%, 1/2W	R17,23	2	2	2

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4050882 SHEET 2	REV F

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
38	066-826	RESISTOR, C.F. 2K, 5%, 1/4W	R10,11	2	2	2
39						
40						
41	066-812	RESISTOR, C.F. 100 OHM, 5%, 1/4W	R14	1	1	1
42	066-663	RESISTOR, C.F. 220 OHM, 5%, 1/4W	R29,3	2	2	2
43	066-859	RESISTOR, C.F. 240 OHM, 5%, 1/4W	R25,19	2	2	2
44	066-665	RESISTOR, C.F. 1K OHM, 5%, 1/4W	R18,26,9,21	4	4	4
45	066-843	RESISTOR, C.F. 6.2K OHM, 5%, 1/4W	R22,	1	1	1
46	066-830	RESISTOR, C.F. 10K OHM, 5%, 1/4W	R1,20,28	3	3	3
47	066-667	RESISTOR, C.F. 3K OHM, 5%, 1/4W	R5	1	-	-
48	066-718	RESISTOR, C.F. 5.6K OHM, 5%, 1/4W	R13	1	1	1
49	066-846	RESISTOR, C.F. 30K OHM, 5%, 1/4W	R2,27	2	2	2
50	059-548	RESISTOR, WW .1 OHM, 1%, 5W	R8,16,6	3	-	-
51	059-558	RESISTOR, WW .33 OHM, 1%, 5W	R7	1	1	1
52	059-625	RESISTOR, WW 2.4 OHM, 5%, 5W	R4,15	2	2	2
53	059-548	RESISTOR, WW, .1 OHM, 1%, 5W	R6,16		2	2
54	586-321	INTEGRATED CIRCUIT (SN72723J)	A1	1	1	1
55	066-824	RESISTOR, C.F., 1.5K OHM, 5%, 1/4W	R5		1	1
56	058-004	RESISTOR, VAR, 1K	R12	1	1	1
57						
58	435-138	CLIP LIGHT	DS-1,2	4	4	4
59	460-557	RIVET, BLIND DOME HD OPEN END		4	4	4
60						
61						
62						
63						
64						



Assembly No. 4050882. Power Supply and Dynamic Brakes PWA



Schematic No. 4840458E.
Power Supply and
Dynamic Brakes PWA

4050912-01 COMMON POWER HARNESS
NEXT HIGHER ASSEMBLY 4020406

REV. C

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	167-664	CONNECTOR, FEMALE SHELL		2
2	167-666	CONNECTOR, CONTACT, PIN		4
3				
4	260-196	GROMMET .250 I.D. X .500 O.D. X .188 THK		1
5				
6		SLEEVING, PVC, FLEX, BLK		A/R
7				
8	611-723	WIRE, 16 AWG, 19 STRAND BLACK 15 IN LG		4
9	4840458	SCHEMATIC, POWER SUPPLY		0

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1				
2				
3	167-025	CONNECTOR,RECEPTACLE, 12 CONTACT	J2	1
4	167-029	CONNECTOR,RECEPTACLE, 36 CONTACT	J1	1
5	166-224	CONTACT,SOCKET, 24 - 26 AWG		9
6	166-199	CONTACT,SOCKET 20 - 22 AWG		17
7	166-225	CONTACT,SOCKET 16 - 18 AWG		19
8				
9	302-379	TIE STRAP		A/R
10	302-540	TIE STRAP		A/R
11	600-095	SLEEVING,SHRINKABLE,BLACK, 1/2"		A/R
12				
13		WIRE,PVC, 18 AWG		A/R
14		WIRE,PVC, 20 AWG		A/R
15		WIRE,PVC, 24 AWG		A/R

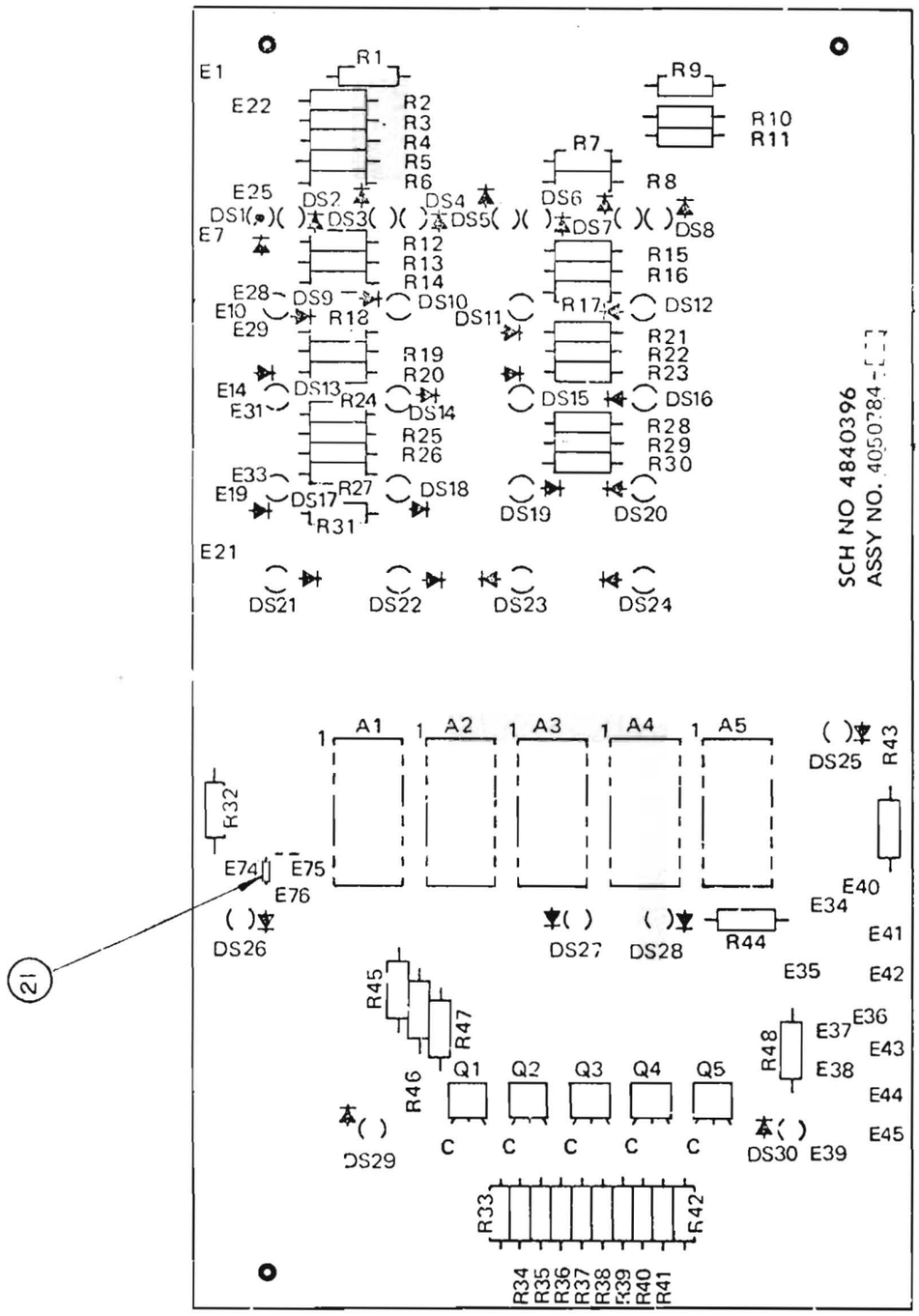
4020405-04 CONTROL UNIT, 4 CHANNEL REV. H
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04
1	4050786-01	HARNESS, CONTROL UNIT		1		1	1
2	4050784-01	PWA #1, CONTROL UNIT, 4-CHAN		1	1	-	-
3	4050785-01	PWA #2, CONTROL UNIT, 4-CHAN		1	-	-	-
4	4100080-AA	PUSHBUTTON, LARGE , (GREY)		4	4	4	4
5	4100080-AB	PUSHBUTTON, LARGE, (RED)		1		1	1
6	4100081-01	PUSHBUTTON, SMALL,(GREY)		11	11	11	11
7	4150351-01	CASE, TOP		1	-	-	-
8	4150352-01	CASE, BOTTOM		1	-	-	-
9	4110299-01	OVERLAY		1	1	1	1
10	~~4600146-01~~	~~CLAMP, CABLE~~		~~1~~			-
11	4050784-02	PWA #1, CONTROL UNIT, 4 CHANNEL				1	1
12	4050785-03	PWA #2, CONTROL UNIT, 4 CHANNEL				1	-
13	280-327	SPACER, THREADED, 4-40 .500LG		6	6	6	6
14	~~471-551~~	~~SCREW, MACHINE, PAN HEAD .312 LG~~		~~6~~			
15	~~473-324~~	~~SCREW, MACHINE, SEM, .250 LG~~		~~2~~			
16	501-195	WASHER, #4, .209 O.D., .032 THK		8	2	2	2
17	4150351-02	CASE, TOP			1	-	-
18	4150352-02	CASE, BOTTOM			1	1	1
19	616-572	CABLE, RIBBON		A/R	A/R	A/R	A/R
20	302-373	STRAP, CABLE, TY RAP			1	1	1
21	4330357-01	LOCKING PLATE			4	4	4
22							
23	471-575	SCREW, BINDER HD, #4-40 X 5/16			2	2	2
24	470-099	SCREW, CAP, HEX SOC 4-40 X .312 LG				4	4
25	225-432	TAPE, DOUBLE SIDED			A/R	A/R	A/R
26	4050785-03	PWA, NO. 2 CONTROL UNIT, 4-CHANNEL		-	-	-	1
27	6000035-01	LABEL, IDENTIFICATION					1
28	473-929	SCREW, HEX HD 4-40 X .437 LG, VAC-2A				6	6
29	4150351-03	CASE, TOP					1

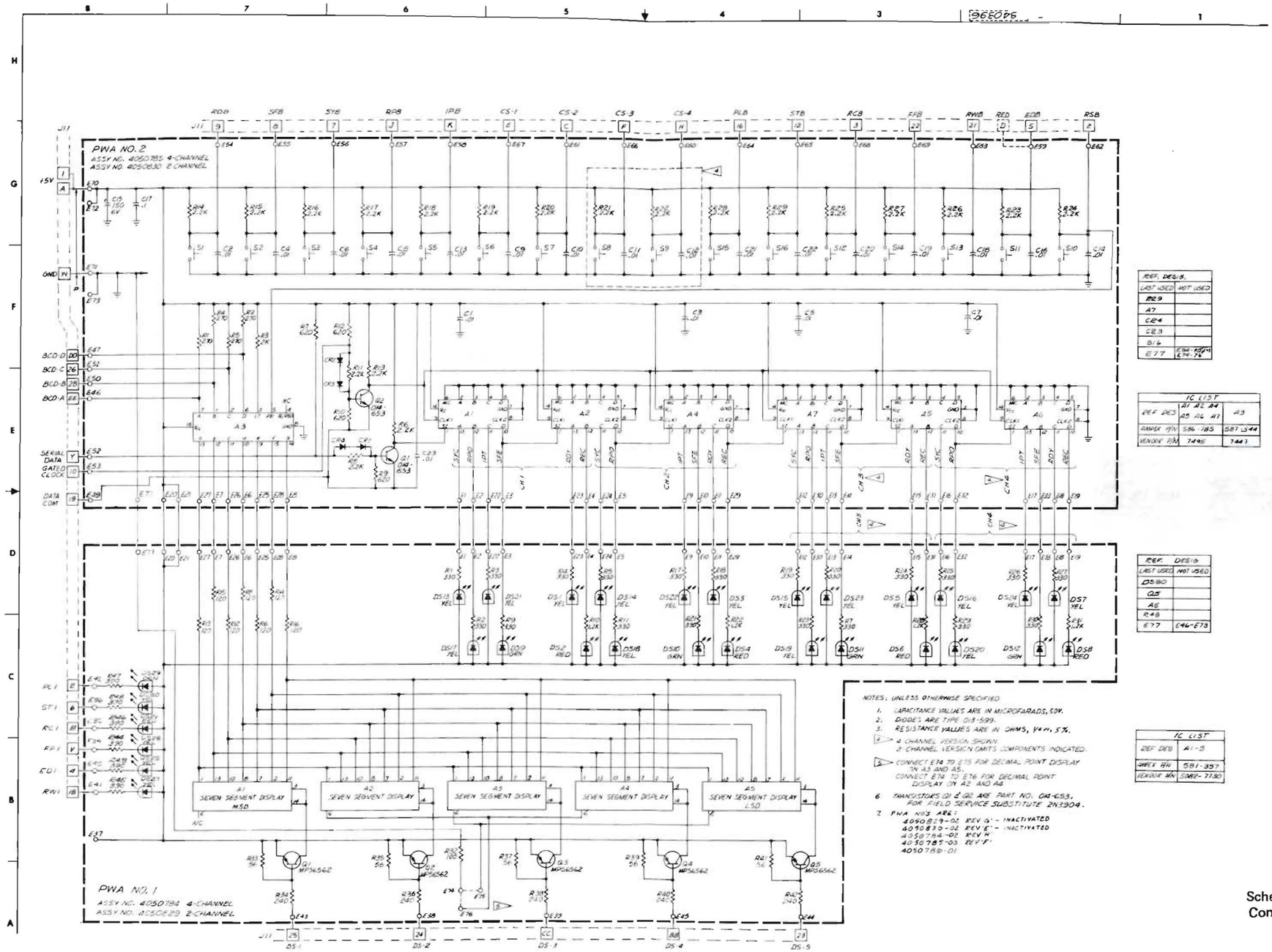
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1						
2						
3	4840396	SCHEMATIC		REF	F	
4						
5	066-816	RESISTOR, C.F. 390 OHMS, 5%, 1/4W	R43-48			6
6	076-003	RESISTOR, C.F., 56Ω, 5%, 1/4W	R33,35,37,39,41		5	
7	066-312	RESISTOR, C.F. 100Ω, 5%, 1/4W	R32		1	
8	066-691	RESISTOR, C.F., 120Ω, 5%, 1/4W	R6,8,12-16		7	
9	066-859	RESISTOR, C.F., 240Ω, 5%, 1/4W	R34,36,38,40,42		5	
10	066-838	RESISTOR, C.F., 330Ω, 5%, 1/4W	R1-5,7,9,11,17-21, 23-27,29,30		20	
11	066-715	RESISTOR, C.F., 1.2KΩ, 5%, 1/4W	R10,22,28,31		4	
12	076-004	RESISTOR, C.F., 180Ω, 5%, 1/4W	R43-48		-	
13	580-725	TRANSISTOR, MPS 6562	Q1-5		5	
14	581-399	LED, YEL, H.P. 5082-4584	DS1,3,5,7,13-25, 27,28,30		20	
15	581-400	LED, RED, H.P. 5082-4684	DS2,4,6,8,26		5	
16	581-401	LED, GRN, H.P. 5082-4984	DS9,10,11,12,29		5	
17						
18	581-357	DISPLAY, 7-SEG, H.P. 5052-7730 [1]	A1,2,3,4,5		5	
19						
20						
21	615-124	WIRE, SOLID, INSULATED, 24 AWG WHITE		A/R	A/R	

NOTE:

[1] INSTALL DISPLAYS HAVING THE SAME LUMINOUS INTENSITY CATEGORY ON ONE BOARD



Assembly No. 4050784. Control Unit PWA, No. 1, 4 Channel



REF. DESIG.	
LAST USED	NOT USED
B29	
A7	
C24	
C23	
S16	
E77	E34-E57, E74-76

IC LIST		
REF DES	A1 A2 A4 A5 A6 A7	A3
AMPEX P/N	586-185	587-544
VENDOR P/N	7495	7447

REF. DESIG	
LAST USED	NOT USED
DS80	
Q5	
A8	
R48	
E77	E46-E73

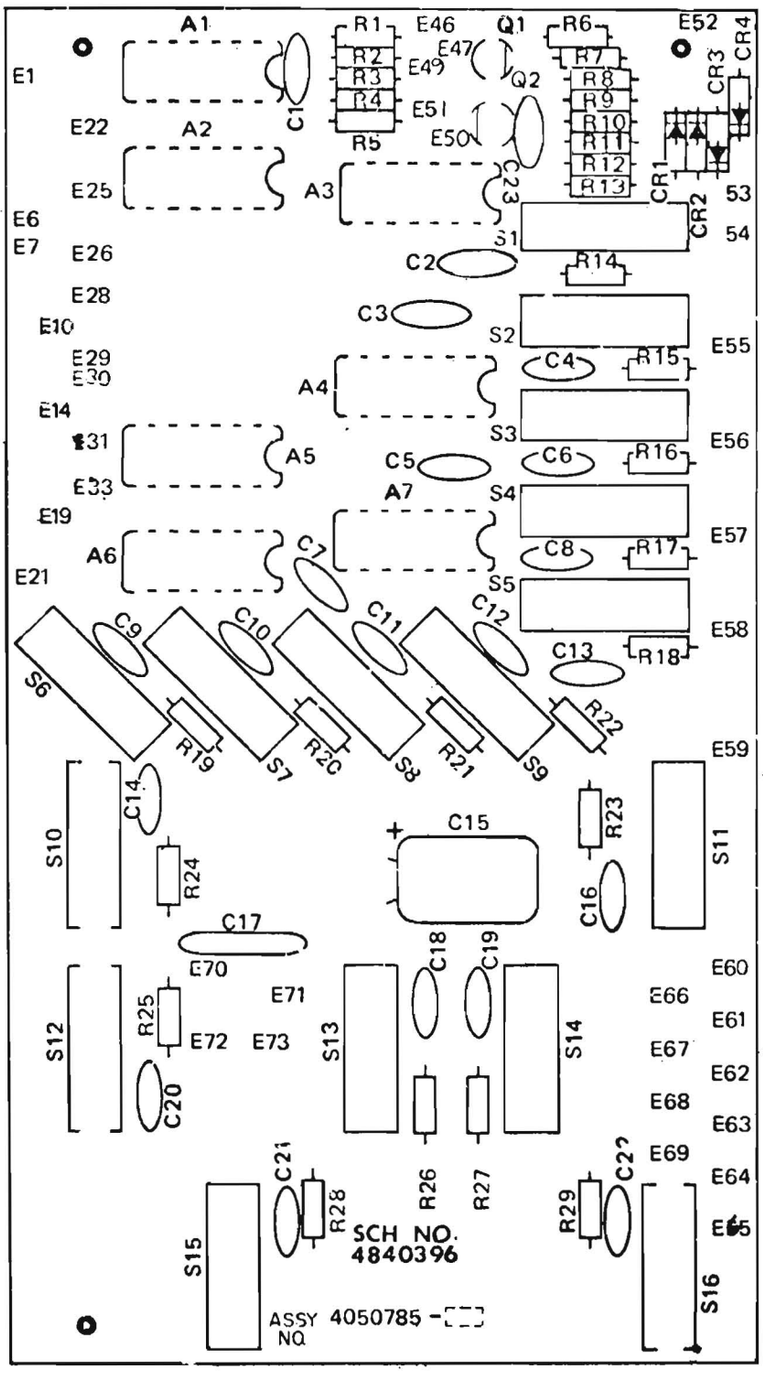
IC LIST	
REF DES	A1-5
AMPEX P/N	581-357
VENDOR P/N	5082-7730

Schematic No. 4840396F.
Control Unit PWA, No. 1,
4 Channel

4050785-04 CONTROL UNIT PWA, NO. 2, 4 CHANNEL REV. J

NEXT HIGHER ASSEMBLY 4010264,4020405

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04
1					1	-		-
2								
3	4840396		SCHEMATIC		C	D	F	F
4								
5	013-599		DIODE (1N4531)	CR1-4	4	4	4	4
6	014-653		TRANSISTOR (2N2904)	Q1,Q2	2	2	2	2
7								
8								
9	037-970		CAPACITOR,TANT,DIPPED,150uF ,20% 6V	C15	1	1	1	1
10								
11	030-145		CAPACITOR,CER,MONO, .1uF, 50V, 20%	C17	1	1	1	1
12	064-116		CAPACITOR,CER,DISC,.01uF,+80-20%,50V	C1-14,16,18-22	20	-	-	-
13	064-116		CAPACITOR, CER,DISC,.01 uF,+80-20%,50V	C1-14,16,18-23		21	21	21
14								
15	066-314		RESISTOR,C.F. 270Ω,5%,1/4W	R1,2,4,5	4	4	4	4
16	066-819		RESISTOR,C.F. 620Ω,5%,1/4W	R7,9,10,12	4	4	4	4
17	066-826		RESISTOR,C.F. 2.0KΩ,5%,1/4W	R3	1	1	1	1
18	066-689		RESISTOR,C.F. 2.2KΩ,5%,1/4W	R6,8,11,13-29	21	20	20	20
19								
20								
21	119-367		(PER RESTRICTED VENDOR) SWITCH,MOMENTARY, N.O.	S1-16	16	16	16	16
22								
23								
24	586-785		I.C.,4-BIT SHIFT REGISTER (7495)	A1,2,4-7	6	6	6	6
25	587-544		I.C.,BCD DECODER (7447)	A3	1	1	1	1



Assembly No. 4050785. Control Unit PWA, No. 2, 4 Channel

4050786-01 CONTROL UNIT HARNESS ASSEMBLY REV. F
NEXT HIGHER ASSEMBLY 4020405

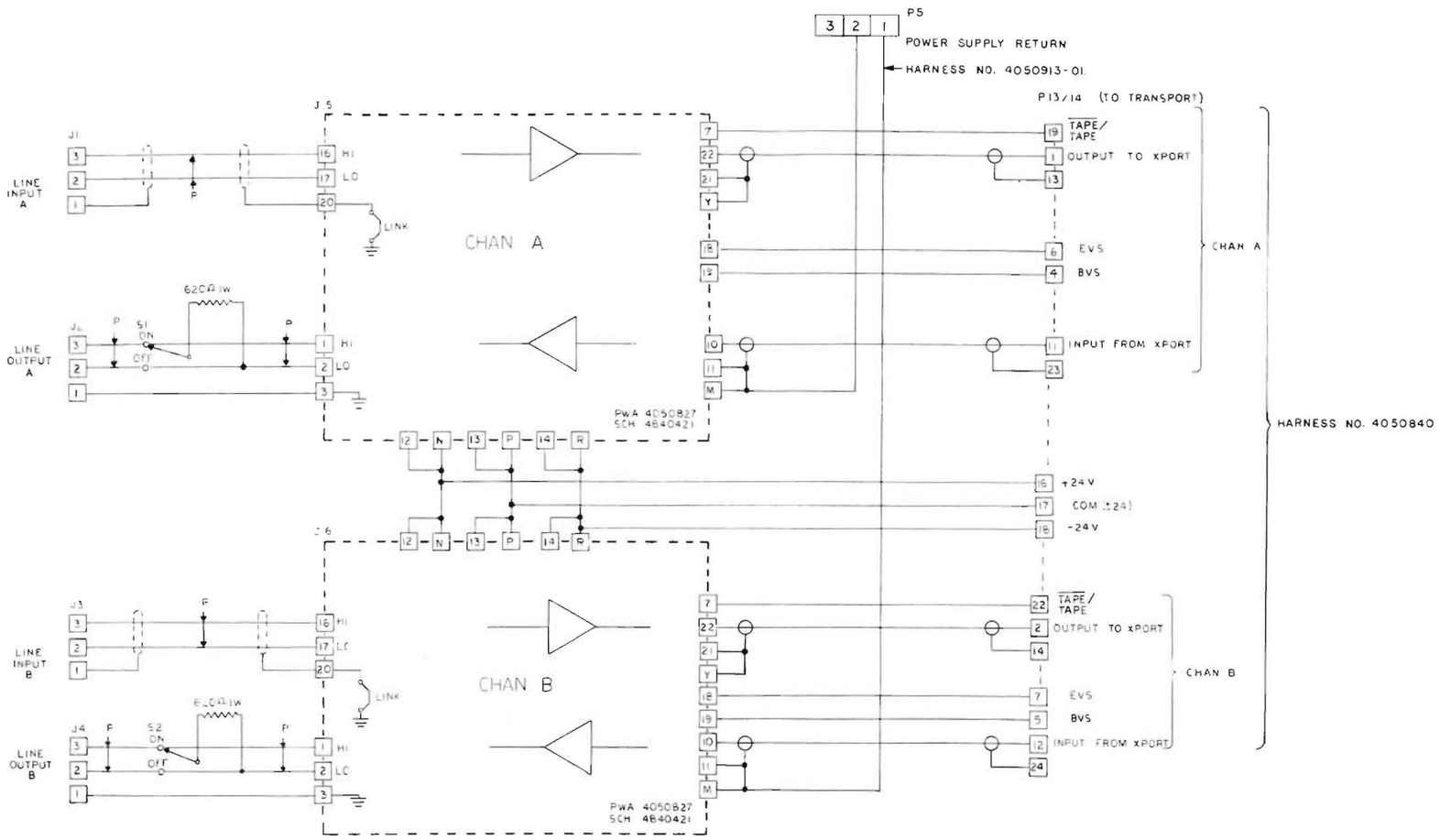
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4840396	SCHEMATIC	F	
2				
3	143-804	CONNECTOR,PCB,56 PIN	1	
4	470-013	SCREW, CAP, 4-40 X 5/8 LG	1	
5	496-002	NUT, KEP, 4-40	1	
6		WIRE,PVC,22 AWG	A/R	
7		WIRE,PVC,24 AWG	A/R	
8	501-008	WASHER, PLAIN, #4	1	
9	302-540	TIE STRAP,	A/R	
10	600-009	SLEEVING,PVC,FLEXIBLE,BLACK (.208)	A/R	
11	600-043	SLEEVING,PVC,FLEXIBLE, 330 I.D., BLACK,	A/R	
12	600-092	SLEEVING,SHRINKABLE,BLACK (.250)	A/R	
13	600-131	SLEEVING,SHRINKABLE,CLEAR (.125)	A/R	

4010254-05 INPUT/OUTPUT MAIN FRAME ASSEMBLY REV. M
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05
1								
2								
3	4290956-01	COVER, I/O MODULE		1	1	1	1	-
4	4050913-01	HARNESS,POWER RETURN						1
5	4050840-01	HARNESS INPUT/OUTPUT		1	1	1	1	1
6	4260573-01	BRACKET, COVER SUPPORT					1	1
7	4260531-01	BRACKET		2	2	2	2	-
8	4260531-02	BRACKET				2	2	2
9	4290827-01	CHASSIS,MAINFRAME		1	1	1	1	-
10	4290827-02	CHASSIS, MAIN FRAME				1	1	1
11	4330341-01	CASTING,FRAME		1	1	1	1	-
12	~~4330341-02~~	~~CASTING, FRAME~~						
13	4840427	SCHEMATIC	REF	A	A	A	A	B
14	4330362-02	FRAME, I/O MODULE DIE CASTING (REF DWG.REV. C)					1	1
15	041-101	RESISTOR,1W, 620Ω, 5%	R1,2	2	2	2	2	2
16								
17	119-196	SWITCH,DPDT SLIDE	S1,2	2	2	2	2	2
18								
19	143-198	CONNECTOR,PCB,22 PIN,DUAL CONTACT J17-J18		2	2	2	2	2
20	146-998	CONNECTOR,AUDIO RECP, 3 SOC. XLR		2	2	2	2	2
21	147-999	CONNECTOR,AUDIO RECP, 3 PIN, XLR		2	2	2	2	2
22	471-070	SCREW, MACH, PAN HD, 6-32, .438 LG.					1	1
23	470-012	SCREW,SOCKET HEAD, 4/40 X 1/2"		4	4	4	4	4
24	~~470-031~~	~~SCREW,SOCKET HEAD, 8/32 X 3/4"~~		2	2	2		
25	471-061	SCREW, PAN HD, 4/40 X.312 LG		4	4	4	4	4
26	471-328	SCREW,F/H 4/40 X 3/8"		8	8	8	8	8
27	476-998	SCREW,SELF-TAP 1/4" 6/20 (FOR FRAME CASTING ONLY)		19	23		4	4
28	476-010	SCREW, SELF-TAP 3/16" 6/20					10	10
29	496-004	NUT,KEP, 4/40		12	12	12	16	16
30	~~496-006~~	~~NUT,KEP, 8/32~~		2	2	2		
31	496-005	NUT, HEX, KEP, 6/32					1	1
32	600-196	SLEEVING, TEFLON, .042 I.D.				A/R	A/R	A/R
33	615-026	WIRE, BARE, 22 AWG				A/R	A/R	A/R
34	506-013	WASHER 'D'					1	1
35	302-088	CLAMP, LOOP, OFFSET, .500 I.D., NYLON, BLK					1	1
36	502-003	WASHER, LOCK, #6, HELICAL SPRING					2	2
37	501-009	WASHER, PLAIN, #6					2	2

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA | CODE IDENT NO 09739 | LIST OF MATERIALS | LM- 4010254 SHEET 2 | REV M

ITEM NO.	PART NUMBER		DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01	02	03	04	05
38			SLEEVING, SHRINK, POF, CLR					AR	A/R
39	~~600-432~~		SLEEVING, SHRINKABLE, CLEAR, .187 EXP.					AR	
40	6000035-01		LABEL					1	1
41	470-018		SCREW, CAP, SOCKET HD, 6-32, .375 LG					2	2
42	302-379		STRAP, CABLE					A/R	A/R
43	501-008		WASHER, PLAIN #4					4	4



Schematic No. 4840427C.
Input/Output Main Frame Assembly

4050913-01 POWER RETURN HARNESS ASSEMBLY REV. A
NEXT HIGHER ASSEMBLY 4010254

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	167-665	CONNECTOR, MALE SHELL		1
2	167-667	CONNECTOR CONTACT, SOCKET		2
3				
4	600-009	SLEEVING PVC BLACK, .208 I.D., 54 IN LONG		1
5				
6	611-723	WIRE, 16 AWG, 19 STRAND BLACK 60 IN LG		1
7	611-723	WIRE, 16 AWG, 19 STRAND BLACK 58 IN LG		1

4050840-01 I/O MAIN FRAME HARNESS ASSEMBLY REV. H
NEXT HIGHER ASSEMBLY 4010254

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4840427	SCHEMATIC,		B
2				
3				
4	139-840	CONNECTOR, PLUG, 24PIN		1
5				
6	265-082	BUSHING, CABLE 7/16 I.D. (HEYCO SB 625-7)		1
7				
8	302-540	TIE-WRAP		A/R
9				
10	600-092	SLEEVING SHRINK BLACK .250		A/R
11	600-048	SLEEVING, PVC, BLK.		A/R
12	600-161	SLEEVING TEFLON		A/R
13	600-130	SLEEVING, SHRINK, CLEAR .093		A/R
14				
15	616-282	CABLE,SHIELDED AND JACKETED 26 AUG		A/R
16	616-541	CABLE, 2 COND, 26 AWG. SHIELDED		A/R
17				
18				
19		WIRE,PVC, 24AWG		A/R
20		WIRE,PVC, 22AWG		A/R
21		WIRE,PVC, 20AWG		A/R

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER							
				-01	-02	-03	-04	-05	-06	-07	-08
1	[illegible]	[illegible], I/O MODULE		-	-	-	-	-	-	-	-
2	4050828-01	PWA, BIAS & ERASE INDICATORS		1	1	1	1	1	1	1	1
3	4110292-02	OVERLAY			1	1	1	1	1	1	1
4	[illegible]	OVERLAY		1	-	-	-	-	-	-	-
5	[illegible]	FLAG, SCALE INDICATOR		1	-	-	-	-	-	-	-
6	4140028-01	METER		1	1	1	1	1	1	1	1
7	4290828-04	CHASSIS, MODULE			1	1	1	1	1	1	1
8	4290828-01	CHASSIS, MODULE		1	-	-	-	-	-	-	-
9	4840421	SCHEMATIC	REF	C	C	F	F	F	H	J	
10	4140026-02	FLAG, SCALE INDICATOR			1	1	1	1	1	1	1
11	6000004-20	KNOB, BLACK		2	-	-	-	-	-	-	-
12	6000006-20	KNOB, BLACK			2	2	2	2	2	2	2
13	058-980	POT, 50KΩ, Z TAPER		1	1	1	1	1	1	1	1
14	058-981	POT, 100KΩ, Z TAPER		1	1	1	1	1	1	1	1
15	060-019	LAMP, #327		2	2	2	2	2	2	2	2
16	4050827-02	PWA, I/O MODULE				1	-	-	-	-	-
17	139-872	CONNECTOR, PHONE JACK		1	1	1	1	1	1	1	1
18	167-369	CONNECTOR, SPRING CONTACT		8	8	8	8	8	8	8	8
19	167-370	CONNECTOR BODY, PLUG, 6-POSITION		1	1	1	1	1	1	1	1
20	167-404	CONNECTOR BODY, PLUG, 2-POSITION		1	1	1	1	1	1	1	1
21	280-344	SPACER, UNTHREADED, PLAIN #6 .250 OD X .125 LG			1	1	1	1	1	1	1
22	172-009	SOLDER LUG		2	2	2	2	2	2	2	2
23	280-986	SPACER, UNTHREADED, 5/16 LG		4	-	-	-	-	-	-	-
24	496-004	NUT WITH ASSEMBLED WASHER, 4-40		7	7	7	5	5	5	5	5
25	470-010	SCREW, SOCKET HEAD, 4-40 X 3/8		4	4	4	4	4	4	4	4
26	470-014	SCREW, SOCKET HEAD, 4-40 X 3/4		2	-	-	-	-	-	-	-
27	470-023	SCREW, SOCKET HEAD, 6-32 X 7/8			1	1	2	2	2	2	2
28	471-061	SCREW, PAN HEAD, 4-40 X 5/16		1	1	1	1	1	1	1	1
29	502-002	WASHER, SPRING LOCK, #4		4	4	4	4	4	4	4	4
30	280-659	SPACER, UNTHREADED, .375 LG			4	4	4	4	4	4	4
31		WIRE, PVC, 22 AWG	A/R	-	-	-	-	-	-	-	-
32		WIRE, PVC, 24 AWG			A/R	A/R	A/R	A/R	A/R	A/R	A/R
33	4050827-05	PWA, I/O MODULE					1	-	-	-	-
34	496-005	NUT, HEX, KEP 6-32					2	2	2	2	2
35	501-009	WASHER, PLAIN #6					2	2	2	2	2
36	302-335	STRAP, CABLE, .750 MAX, NYLON					3	3	3	3	3
37	600-254	SLEEVING, PVC, SHRINKABLE, .187 EXP. BLK (P1)					A/R	A/R	A/R	A/R	A/R

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06	-07	-08
38	600-153	SLEEVING, SHRINKABLE, .125 EXP. BLK	(P2)				A/R	A/R	A/R	A/R	A/R
39	6000035-01	LABEL, IDENTIFICATION					1	1	1	1	1
40	501-008	WASHER, PLAIN #4					1	1	1	1	1
41	4050827-06	PWA, I/O MODULE						1	-	-	-
42	4050827-07	PWA, I/O MODULE		-	-	-	-	-	1	-	-
43	4050827-08	PWA, I/O MODULE								1	-
44	4050827-10	PWA, I/O MODULE		-	-	-	-	-	-	-	1

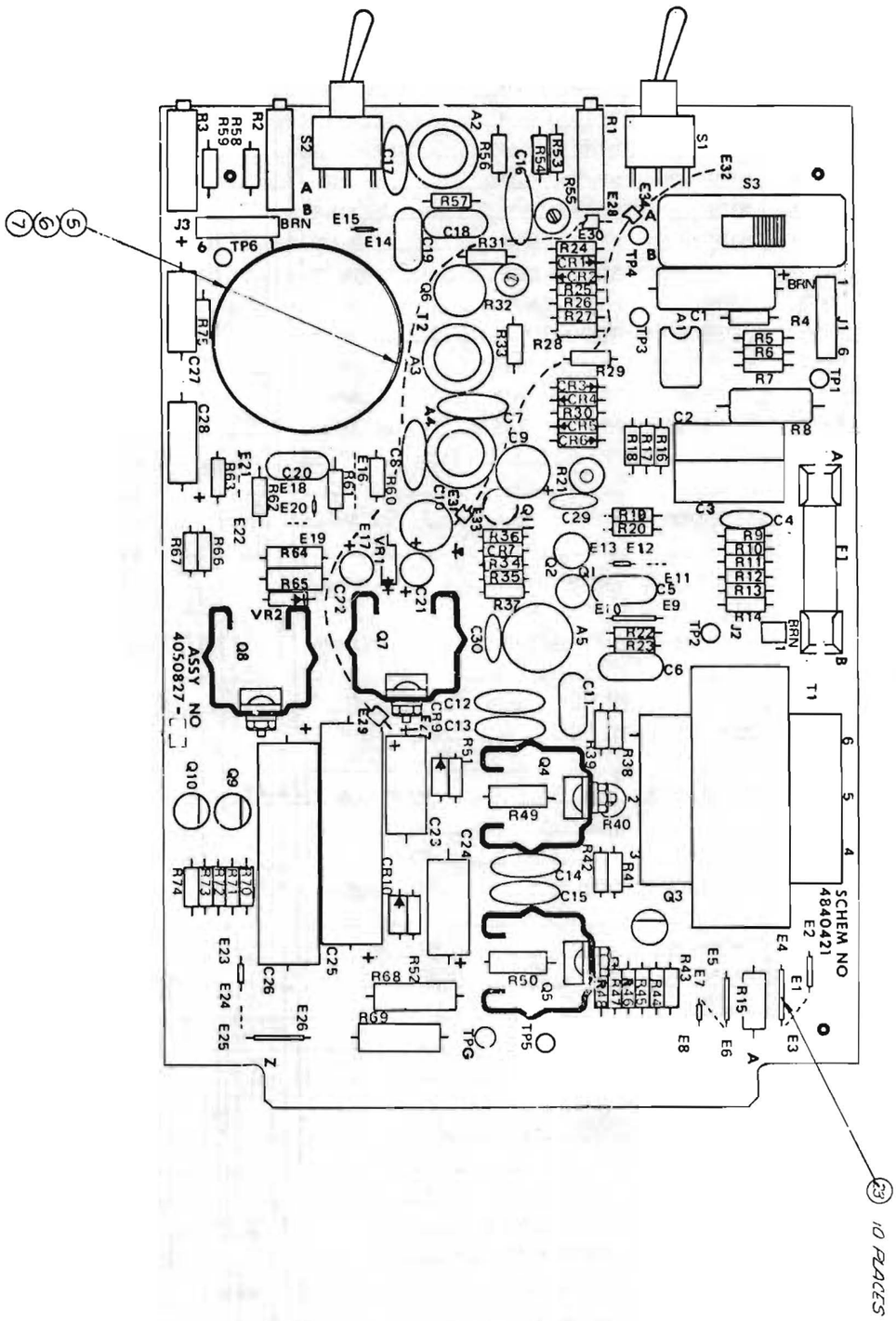
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER									
					-01	-02	-03	-04	-05	-06	-07	-08	-09	-10
1					1	-	-	-	-	-	-	-	-	
2	4840421		SCHEMATIC		REF	C	D	E	F	F	G	H	J	K
3														
4														
5	4290941-01		COVER, INPUT TRANSFORMER		1	1	1	1	1	1	1	1	1	1
6	4290942-01		CAN, INPUT TRANSFORMER		1	1	1	1	1	1	1	1	1	1
7	4580066-01		TRANSFORMER, INPUT	T2	1	1	1	1	1	1	1	1	1	1
8	4580067-01		TRANSFORMER, OUTPUT	T1	1	1	1	1	1	1	1	1	1	1
9	070-031		FUSE, FAST BLOW, 0.75 AMP	F1					1	1	1	1	1	1
10	070-011		FUSE, FAST BLOW, 0.5 AMP	F1	1	1	1	1	-	-	-	-	-	-
11	013-599		DIODE, CD458 (1N4531)	CR1-7	-	-	-	-	-	-	7	7	7	7
12	013-599		DIODE, CD458	CR1-8, 11		9	9	9	9	9	-	-	-	-
13	013-599		DIODE, CD458	CR1-8	8	-	-	-	-	-	-	-	-	-
14	013-678		DIODE, CD451 (1N4385)	CR9, 10	2	2	2	2	2	2	2	-	2	2
15	581-291		DIODE, ZENER, 16V, 1W (1N4745A)	VR1, 2	2	2	2	2	2	2	2	-	2	2
16	013-678		DIODE, CD451	CR9, 10, 12, 13, 14							-	5	-	-
17	587-441		VOLTAGE REGULATOR (LM340T15)	A6							-	1	-	-
18	014-247		TRANSISTOR, CD38 (2N2219)	Q6	1	1	1	1	1	1	1	1	1	1
19	014-652		TRANSISTOR, CD524 (2N3906)	Q3, 9, 10	3	3	3	3	3	3	3	3	3	3
20	580-304		TRANSISTOR, F.E.T. (P1087E)	Q1, 2	2	2	2	2	2	2	-	-	-	-
21	580-760		TRANSISTOR (GE-D44C9)	Q7	1	1	1	1	1	1	1	-	1	-
22	580-761		TRANSISTOR (GE D45C9)	Q8	1	1	1	1	1	1	1	-	1	-
23	580-859		TRANSISTOR (TIP41B)	Q5	1	1	1	1	1	1	1	1	1	1
24	580-860		TRANSISTOR (TIP42B)	Q4	1	1	1	1	1	1	1	1	1	1
25	587-478		I.C. OP. AMP (318H)	A2-5	4	4	4	4	4	4	4	4	4	4
26	586-905		I.C. DUAL OP. AMP (1458)	A1	1	1	1	1	1	1	1	1	1	1
27	580-304		TRANSISTOR, F.E.T. (P1087E)	Q1, 2, 11	-	-	-	-	-	-	3	3	3	3
28	589-801		VOLTAGE REGULATOR LM320T15	A7							-	1	-	-
29	122-423		SWITCH, TOGGLE, SPDT	S1	1	1	1	1	1	1	1	1	1	1
30	119-368		SWITCH, TOGGLE, DPDT	S2	1	1	1	1	1	1	1	1	1	1
31	119-377		SWITCH, SLIDE, DPDT	S3	1	1	1	1	1	1	1	1	1	1
32														
33	034-215		CAPACITOR, MICA, 10 Pf, 500V, ±0.5 Pf	C19	1	1	1	1	1	1	1	1	1	1
34	034-156		CAPACITOR, MICA, 5pF, 500V, ±0.5pf	C6	1		1	1	1	1	1	1	1	1
~~35~~	~~034-215~~		~~CAPACITOR, MICA, 10pF, 500V, ±0.5pf~~	~~C20~~	1	-	-	-	-	-	-	-	-	-
36	034-181		CAPACITOR, MICA, 47pF, 500V, 5%	C5	1		1	1	1	1	1	1	1	1
37	034-182		CAPACITOR, MICA, 56pF, 500V, 5%	C11	1		1	1	1	1	1	1	1	1

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4050827 SHEET 2	REV P

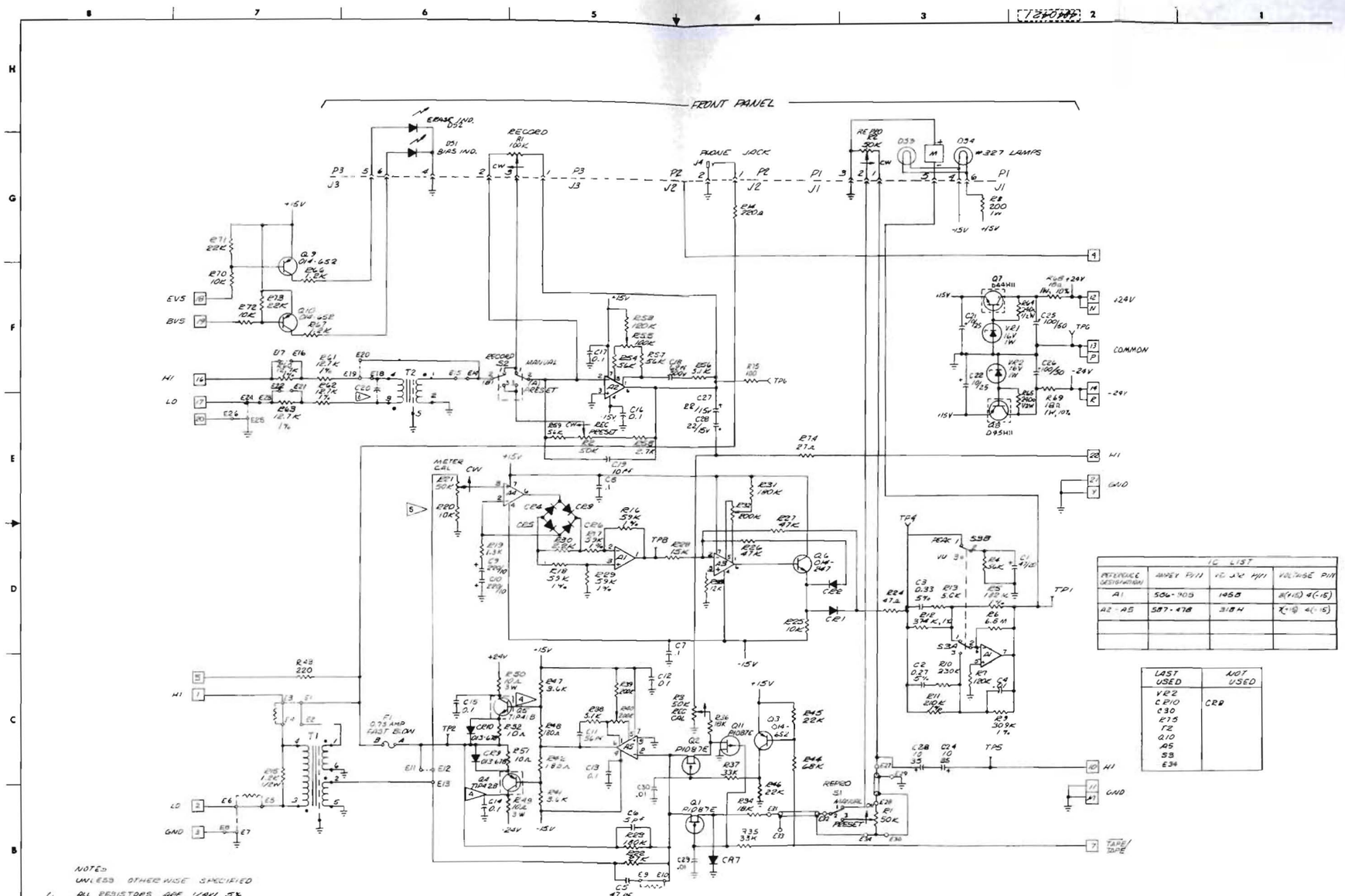
ITEM NO	PART NUMBER		DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER									
					-01	-02	-03	-04	-05	-06	-07	-08	-09	-10
38	034-183		CAPACITOR,MICA,62pF,500V,5%	C18	1	1	1	1	1	1	1	1	1	1
39	037-996		CAPACITOR, TANT, TUBULAR, 10uF, 35V , 10%	C23,24	2	2	2	2	2	2	2	2	2	2
40	037-991		CAPACITOR,TANT, TUBULAR, 22uF, 15V, 10%	C27,28	2	2	2	2	2	2	2	2	2	2
41	037-812		CAPACITOR,TANT,DIPPED, 10uF, 25V, 10%	C21,22	2	2	2	2	2	2	2	2	2	2
42	037-746		CAPACITOR,TANT,TUBULAR, 47uF, 20V, 10%	C1	1	1	1	1	1	1	1	1	1	1
43	037-967		CAPACITOR,TANT,DIPPED, 220uF, 10V, 10%	C9,10	2	2	2	2	2	2	2	2	2	2
44														
45	055-193		CAPACITOR,MYLAR,0.27uF,50V,5%	C2	1		1	1	1	1	1	1	1	1
46	055-853		CAPACITOR,MYLAR,0.33uF,50V,5%	C3	1		1	1	1	1	1	1	1	1
47														
48	063-031		CAPACITOR,ALUM,100uF,50V,+75%-10%	C25,26	2	2	2	2	2	2	2	2	2	2
49														
50	064-116		CAPACITOR,CER,.01uF,50V,+80-20%	C4	1	1	1	1	-	-	-	-	-	-
51	030-145		CAPACITOR,CER MONO, 0.1uF, 50V, 20%	C7,8,12-17	8	8	8	8	8	8	8	8	8	8
52	064-116		CAPACITOR, CER, .01 uF, 50V, +80% -20%	C4,29,30			1	1	3	3	3	3	3	3
53	059-631		RESISTOR, W.W. 10 OHMS, 3W, 5%	R49,50					2	2	2	2	2	2
54	041-789		RESISTOR,COMP,6.8MΩ,1/4W,5%	R6	1	1	1	1	1	1	1	1	1	1
55	041-032		RESISTOR, COMP, 10Ω, 1/2W, 10%	R49,50	2	2	2	2	-	-	-	-	-	-
56	049-572		RESISTOR,COMP,18Ω,1W, 10%	R68,69	2	2	2	2	2	2	2	2	2	2
57	041-473		RESISTOR,COMP,240Ω,1/2W,5%	R64,68	2	2	2	2	2	2	2	1	2	2
58	041-405		RESISTOR,COMP,1.2KΩ,1/2W,5%	R15	1	1	1	1	1	1	1	1	1	1
59														
60	041-828		RESISTOR,COMP,68Ω,1W,5%	R8	1	1	-	-	-	-	-	-	-	-
61	041-885		RESISTOR, COMP, 200 OHMS, 1W, 5%	R8			1	1	1	1	1	1	1	1
62														
63	066-599		RESISTOR,METAL FILM,12.7KΩ,1/4W,1%	R60-63	4	4	4	4	4	4	4	4	4	4
64	076-019		RESISTOR,METAL FILM,59KΩ,1/4W,1%	R16-18,29	4	4	4	4	4	4	4	4	4	4
65	066-803		RESISTOR,METAL FILM,182KΩ,1/4W,1%	R5	1	1	1	1	1	1	1	1	1	1
67	076-070		RESISTOR,METAL FILM,210KΩ,1/4W,1%	R11	1	1	1	1	1	1	1	1	1	1
68	076-064		RESISTOR,METAL FILM,309KΩ,1/4W,1%	R9	1	1	1	1	1	1	1	1	1	1
69	076-063		RESISTOR,METAL FILM,374KΩ,1/4W,1%	R12	1	1	1	1	1	1	1	1	1	1
70	066-810		RESISTOR,CARBON FILM, 10 OHMS, 1/4W, 5%	R51,52,76								3	-	-
71	066-810		RESISTOR, CARBON FILM,10Ω ,1/4W,5%	R51,52	2	2	2	2	2	2	2	-	2	2
72	076-041		RESISTOR,CARBON FILM,27Ω,1/4W,5%	R74	1	1	1	1	1	1	1	1	1	1
73	066-938		RESISTOR,CARBON FILM,47Ω,1/4W,5%	R24	1		1	1	1	1	1	1	1	1
74	076-004		RESISTOR,CARBON FILM,180Ω,1/4W,5%	R42,48	2	2	2	2	2	2	2	2	2	2
75	066-663		RESISTOR,CARBON FILM,220Ω,1/4W,5%	R14,43	2	2	2	2	2	2	2	2	2	2
76	066-841		RESISTOR,CARBON FILM, 1.3K OHMS, 1/4W, 5%	R19	1		1	1	1	1	1	1	1	1
77	066-842		RESISTOR,CARBON FILM,5.1K OHMS, 1/4W, 5%	R38,56	2	2	2	2	2	2	2	2	2	2
78	066-715		RESISTOR,CARBON FILM,1.2KΩ,1/4W,5%	R66,67	2	2	2	2	2	2	2	2	2	2
79	066-830		RESISTOR,CARBON FILM,10K Ω,1/4W,5%	R20	1	1	1	1	1	1	1	1	1	1
80	066-689		RESISTOR,CARBON FILM,2.2KΩ,1/4W,5%	R30	1	1	1	1	1	1	1	1	1	1
81	066-666		RESISTOR,CARBON FILM,2.7KΩ,1/4W,5%	R58	1	1	1	1	1	1	1	1	1	1
82	066-718		RESISTOR,CARBON FILM,5.6KΩ,1/4W,5%	R13	1	1	1	1	1	1	1	1	1	1
83	066-863		RESISTOR,CARBON FILM, 3.6KΩ,1/4W,5%	R41, 47	2	2	2	2	2	2	2	2	2	2

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4050827 SHEET 3	REV P

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06	-07	-08	-09	-10
84	066-830	RESISTOR,CARBON FILM,10Kᘯ,1/4W,5%	R25,70,72	3	3	3	3	3	3	3	3	3	3
85	066-865	RESISTOR,CARBON FILM,12Kᘯ,1/4W,5%	R33	1	1	1	1	1	1	1	1	1	1
86	066-956	RESISTOR,CARBON FILM,15Kᘯ,1/4W,5%	R28	1	1	1	1	1	1	1	1	1	1
87	066-832	RESISTOR,CARBON FILM,18Kᘯ,1/4W,5%	R34,36	2	2	2	2	2	2	2	2	2	2
88	066-712	RESISTOR,CARBON FILM,22Kᘯ,1/4W,5%	R45,46,71,73	4	4	4	4	4	4	4	4	4	4
89	066-866	RESISTOR,CARBON FILM,27Kᘯ,1/4W,5%	R22	1	1	1	1	1	1	1	1	1	1
90	066-847	RESISTOR,CARBON FILM,33Kᘯ,1/4W,5%	R35,37	2	2	2	2	2	2	2	2	2	2
91	066-717	RESISTOR,CARBON FILM,47Kᘯ,1/4W,5%	R26,27	2	2	2	2	2	2	2	2	2	2
92	066-833	RESISTOR,CARBON FILM,56Kᘯ,1/4W,5%	R4,54,57,59	4	4	4	4	4	4	4	4	4	4
93	076-009	RESISTOR,CARBON FILM,68Kᘯ,1/4W,5%	R44	1	1	1	1	1	1	1	1	1	1
94	066-868	RESISTOR,CARBON FILM,120Kᘯ,1/4W,5%	R7, 53	2	2	2	2	2	2	2	2	2	2
95	076-011	RESISTOR,CARBON FILM,180Kᘯ,1/4W,5%	R23,31	2	2	2	2	2	2	2	2	2	2
96	066-913	RESISTOR,CARBON FILM,220Kᘯ,1/4W,5%	R39	1	1	1	1	1	1	1	1	1	1
97	076-012	RESISTOR,CARBON FILM,330Kᘯ,1/4W,5%	R10	1	1	1	1	1	1	1	1	1	1
98	066-812	RESISTOR, CARBON FILM, 100 OHMS, 1/4W, 5%	R75	1	1	1	1	1	1	1	1	1	1
99													
100	058-388	RESISTOR,VAR,CERMET,50Kᘯ, .75W	R1-3	3	3	3	3	3	3	3	3	3	3
101													
102	058-001	RESISTOR,VAR,CERMET,50Kᘯ,1/2W,20%	R21	1	1	1	1	1	1	1	1	1	1
103	058-251	RESISTOR,VAR,CERMET,100Kᘯ,1/2W,20%	R55	1	1	1	1	1	1	1	1	1	1
104	058-469	RESISTOR,VAR,CERMET,200Kᘯ,1/2W,10%	R32,40	2	2	2	2	2	2	2	2	2	2
105													
106	579-015	TRANSISTOR, PNP (D45 H11)	Q8									-	1
107	579-014	TRANSISTOR, NPN (D44 H11)	Q7									-	1
108													
109	087-388	SILICONE GREASE	REF: Q4,5,7,8	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
110													
111	070-399	CLIP,FUSE	REF: F1	2	2	2	2	2	2	2	2	2	2
112	187-254	TERMINAL,STRIP,POST, (14 REQ'D)	REF: J1,2,3	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
113													
114	280-998	MTG. PAD,TO5	REF: Q6	1	1	1	1	1	1	1	1	1	1
115	103307-01	SPACER, .25LG	REF: R49,50					4	4	4	4	4	4
116													
117													
118	471-060	SCREW,XREC PAN HD, 4-40 X 1/4 LG		4	4	4	4	4	4	4	4	4	4
119													
120	496-004	NUT,KEPS 4-40		4	4	4	4	4	4	4	4	4	4
121													
122	580-839	HEAT SINK	REF: Q4,5,7,8	4	4	4	4	4	4	4	4	4	4
123	614-695	WIRE, STRANDED, INSULATED, 22 AWG, WHT		A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
124		CABLE, SHIELDED & JACKETED, 26 AWG		-	-	-	-	-	-	A/R	A/R	A/R	A/R



Assembly No. 4050827. Input/Output Module PWA



IC LIST			
REFERENCE DESIGNATION	AMPEX P/N	IC DIP P/N	VOLTAGE P/N
A1	586-903	1458	8(+15) 4(-15)
A2 - A5	587-478	318 H	7(+15) 4(-15)

LAST USED	NOT USED
VR2	
C210	
Q30	
E75	
T2	
Q10	
A5	
S3	
E34	

NOTES:
UNLESS OTHERWISE SPECIFIED

1. ALL RESISTORS ARE 1/4W 5%
2. ALL CAPACITORS ARE IN MICROFARADS.
3. ALL DIODES ARE 013-593.
4. THESE REGULATORS HAVE HEATSINKS, HEATSINKS ARE NOT GROUNDED.
5. R20 TO BE 1.5K IF E2 IS CONNECTED TO E11.
6. C20 TO BE 47PF IF E7 IS CONNECTED TO E14 AND E22 IS CONNECTED TO E21.
7. PWA IS 4050827-10.

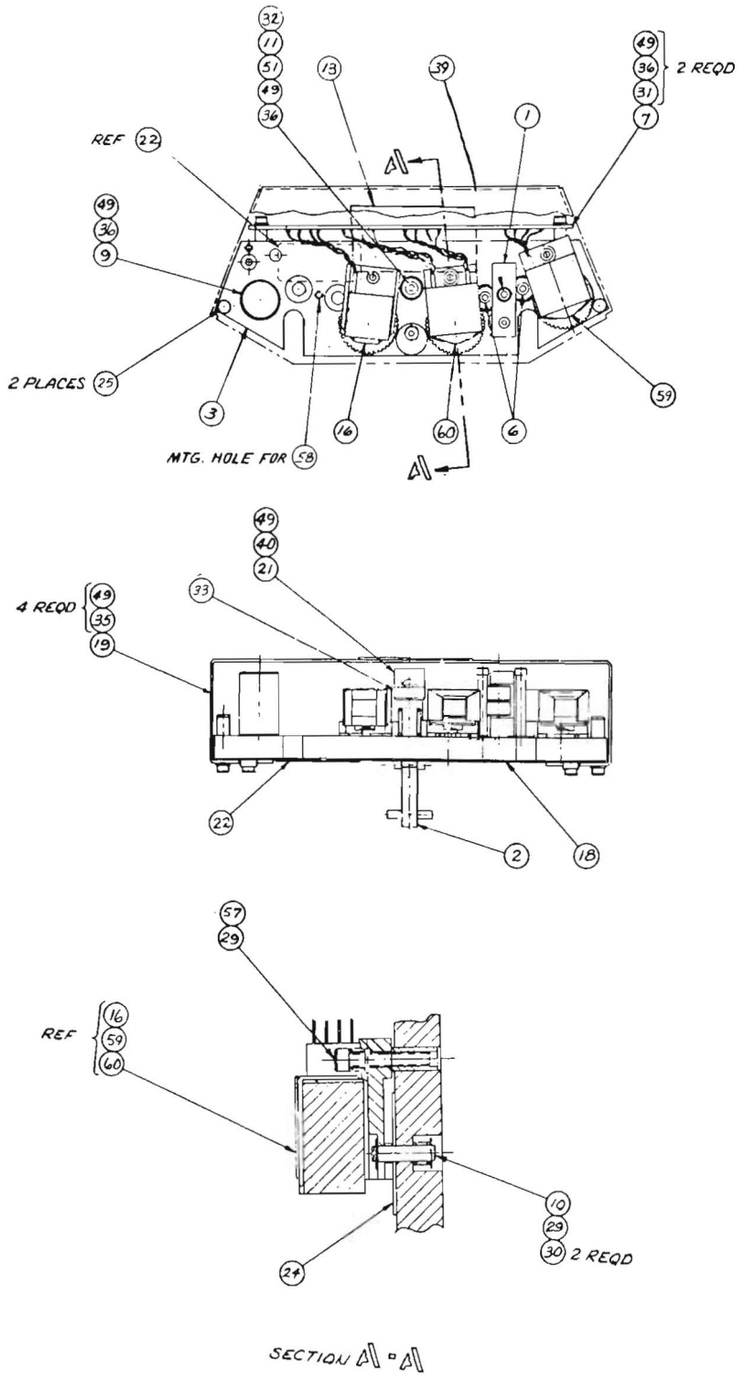
Schematic No. 4840421K.
Input/Output Module PWA

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
1	4030402-AE		IDLER ASSEMBLY, SCRAPE FLUTTER		1	1	1	1	1	1
2	4041225-01		SHAFT ASSEMBLY, HEAD ASSY LOCK		1	1	1	1	1	1
3	4041237-02		PLATE ASSEMBLY, HEAD		1	1	1	1	1	1
~~4~~	~~4041239-01~~		~~SPACER ASSY, PINION GEAR~~		~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	~~-~~
5	4041243-01		GUIDE ASSEMBLY, EDGE		2	2	2	2	2	-
6	4041265-01		PINION, GEAR ASSY		1	2	2	2	2	2
7	4050846-01		P.W.A. HEAD CONNECTOR		1	1	1	1	1	1
8	4210361-01		GUIDE, EDGE HEAD		2	2	2	2	2	-
9	4210362-01		POST DUMMY HEAD		1	1	1	1	1	1
10	4210385-01		PIN, HEAD RETAINING		2	3	3	3	3	3
11	4220322-01		SPACER, LOCK SPRING		1	1	1	1	1	1
12	4240018-01		GEAR, MODIFICATION		2	3	3	3	3	-
13	4170342-01		LABEL, HEAD & PWA WARNING			1	1	1	1	1
14	4350231-01		HEAD STACK ASSY, FULL TRK, PLAY		1	1	1	1	1	-
15	4350232-01		HEAD STACK ASSY, FULL TRK, RECORD		1	1	1	1	1	-
16	4350233-01		HEAD STACK ASSY, FULL TRK, ERASE		1	1	1	1	1	1
17	4350231-02		HEAD STACK ASSY, FULL TRACK, PLAY			1	1	1	1	-
18	4600092-01		SHIELD, HEADS BOTTOM		1	1	1	1	1	1
19	4600093-01		SHIELD, HEADS		1	1	1	1	1	1
20	4350232-02		HEAD STACK ASSY, FULL TRACK, RECORD			1	1	1	1	-
21	4210390-01		DEFLECTOR, 1/4" TAPE			1	1	1	1	1
22	6000035-02		LABEL, IDENTIFICATION			1	1	1	1	1
23	4240018-02		GEAR MODIFICATION					3	3	-
24	4240022-01		GEAR, AZIMUTH						3	3
25	4041243-02		GUIDE ASSY						2	2
26	987-514		GREASE, MOLYLUBE "G" PASTE		A/R	A/R	A/R	A/R	A/R	A/R
~~27~~	~~225-304~~		~~TAPE, PLASTIC ADHESIVE BACK~~		~~A/R~~	~~A/R~~	~~A/R~~	~~A/R~~	~~A/R~~	~~A/R~~
~~28~~	~~352-442~~		~~SPRING, COMPRESSION, LEE LC-055F-3-MW~~		~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~
29	352-443		SPRING, COMPRESSION, LEE LC-024B-1-MW		4	6	6	6	6	6
30	430-152		RING, RETAINING, TRUARC #5133-12		4	6	6	6	6	6
31	280-366		SPACER, PLAIN, .188 O.D. X .18 LG			2	2	2	2	2
32	352-228		SPRING, COMPRESSION ASSOC C0360-045-1000M			1	1	1	1	1
33	4210361-02		GUIDE, EDGE, HEAD						1	1
~~34~~	~~470-004~~		~~SCREW, CAP, HEX SOC #2-56X.37~~		~~1~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~
35	470-009		SCREW, CAP, HEX SOC #4-40X5/16		5	5	4	4	4	4
36	470-011		SCREW, CAP, HEX SOC #4-40X7/16		2	3	4	4	4	4
37	470-013		SCREW, CAP, HEX SOC #4-40X5/8		2	3	3	3	3	-

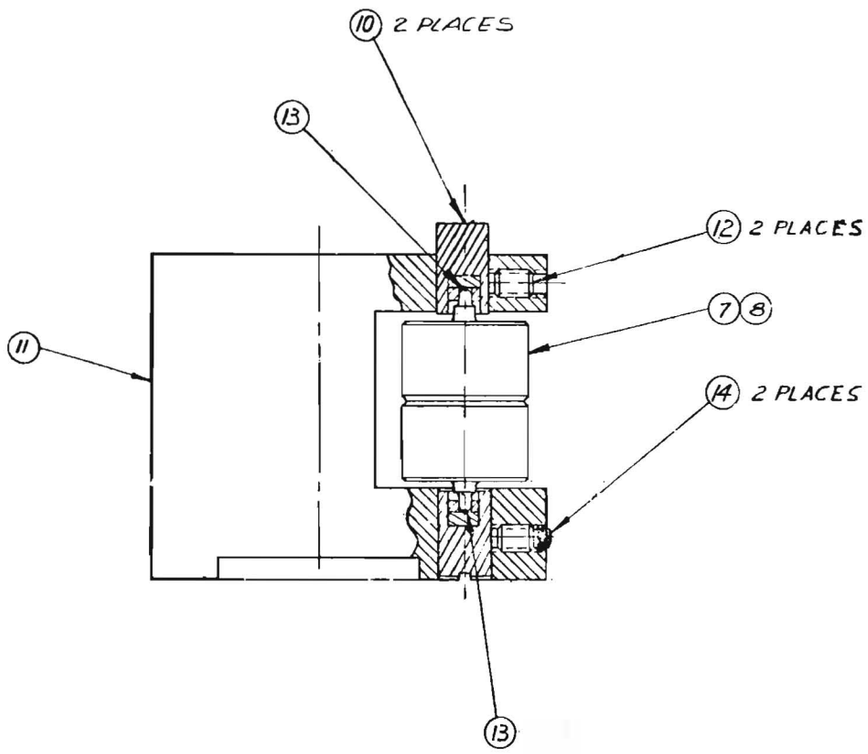
AMPEX CORP. | Ampex Corporation Redwood City, California | LIST OF MATERIALS | LM-4020413 SHEET 2 | REV N

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
~~38~~	~~470-618~~	~~SCREW, CAP, HEX SOC #6-32X1/2~~		~~1~~					
39	470-136	SCREW, CAP, HEX SOC #4-40X7/8		1	1		1	1	1
40	470-476	SCREW, CAP, BUTTON HD 4-40X1/2		1	1		1	1	1
41									
42	232-007	EPOXY, EPON #828			A/R	A/R	A/R	A/R	-
43	232-008	U-CATALYST			A/R	A/R	A/R	A/R	-
44	232-031	RED RESIN DYE			A/R	A/R	A/R	A/R	-
45	501-169	WASHER, FLAT #4			2	2	2	2	-
~~46~~	~~501-009~~	~~WASHER, FLAT #6~~							
~~47~~	~~501-251~~	~~WASHER, FLAT #4, FIBER~~							
~~48~~	~~502-001~~	~~WASHER, SPRING #2~~							
49	502-002	WASHER, SPRING #4		8	15	8	8	9	9
~~50~~	~~502-003~~	~~WASHER, SPRING #6~~							
51	502-389	WASHER, FLAT #4		1	1	1	1	1	1
52									
53									
54	600-105	SLEEVING, SHRINKABLE, 1/8 O.D.		A/R	A/R	A/R	A/R	A/R	-
55									
56									
57	4350345-01	SCREW, HEAD RACKING							3
58	4030402-AF	SCRAPE FLUTTER IDLER ACCESSORY	1					1	1
59	4350231-03	HEAD STACK ASSY, FULL TRACK PLAY							1
60	4350232-03	HEAD STACK ASSY, FULL TRACK RECORD							1

1 INDICATED COMPONENT IS AN ACCESSORY AND WILL BE ADDED TO THE SYSTEM AS DIRECTED BY THE SALES ORDER.



Assembly No. 4020413. Full Track Head Assembly, 1/4 inch



-AE VERSION SHOWN

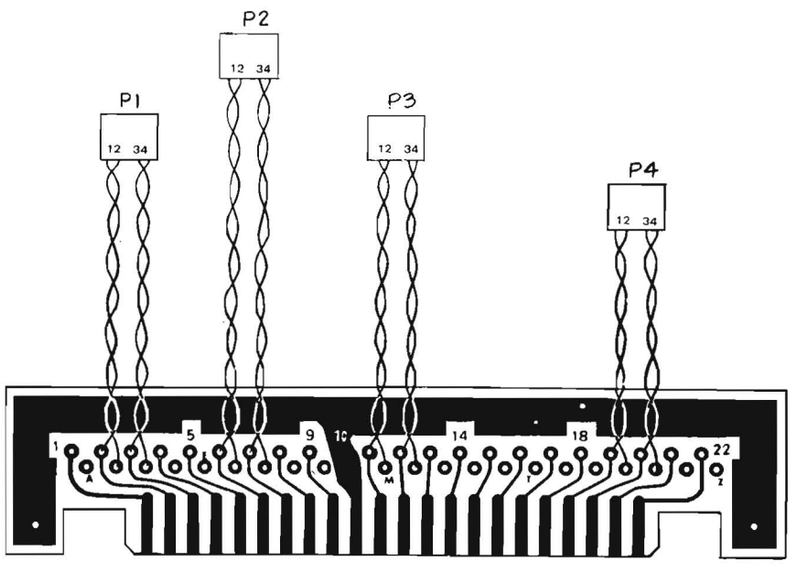
AF	AE	AD	AC	AB	AA	ITEM NO.	PART NUMBER	DESCRIPTION
1	–	–	–	–	–	16	470-136	SCREW, CAP, SOCKET 4-40 X.875 LG
1	1	–	–	–	–	15	160-304	PLASTIC BOX, PACKAGING
A/R	A/R	–	–	–	–	14	087-023	GLYPTAL, COLOR RED
A/R	A/R	–	–	–	–	13	087-719	LUBE, GEL. "NYOGEL 81G"
2	2	–	–	–	–	12	477-779	SCREW, SET, NYLON TIPPED, # 2-56
1	1	–	–	–	–	11	4230280-03	YOKE, SCRAPE FLUTTER
2	2	–	–	–	–	10	4041245-02	HOLDER, BEARING ASSY.
–	–	2	2			9	470-674	SCREW, CAP, HEX SOC, # 2-56 x .88 LG, SST
1	–	1	–			8	4250235-AB	IDLER, SCRAPE FLUTTER
–	1	–	1			7	4250235-AA	IDLER, SCRAPE FLUTTER
				2	2	6	470-611	SCREW CAP HEX SOCKET 2-56 x 7/8
–	–	A/R	A/R	A/R	A/R	5	087-738	OIL, PRECISION INSTRUMENT
				1		4	4250231-02	IDLER SCRAPE FLUTTER
					1	3	4250201-01	IDLER SCRAPE FLUTTER
–	–	1	1	1	1	2	4230280-02	YOKE SCRAPE FLUTTER
–	–	2	2	2	2	1	4041245-01	HOLDER BEARING ASSY.

PARTS LIST

Assembly No. 4030402. Scrape Flutter Idler

4050846-01 HEAD CONNECTOR PWA, 1-2 CHANNEL REV. -
NEXT HIGHER ASSEMBLY 4020413

ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01
1					
2	139-864		CONNECTOR ASSEMBLY		4



LEAD DIMENSIONS
(PRIOR TO TWISTING)

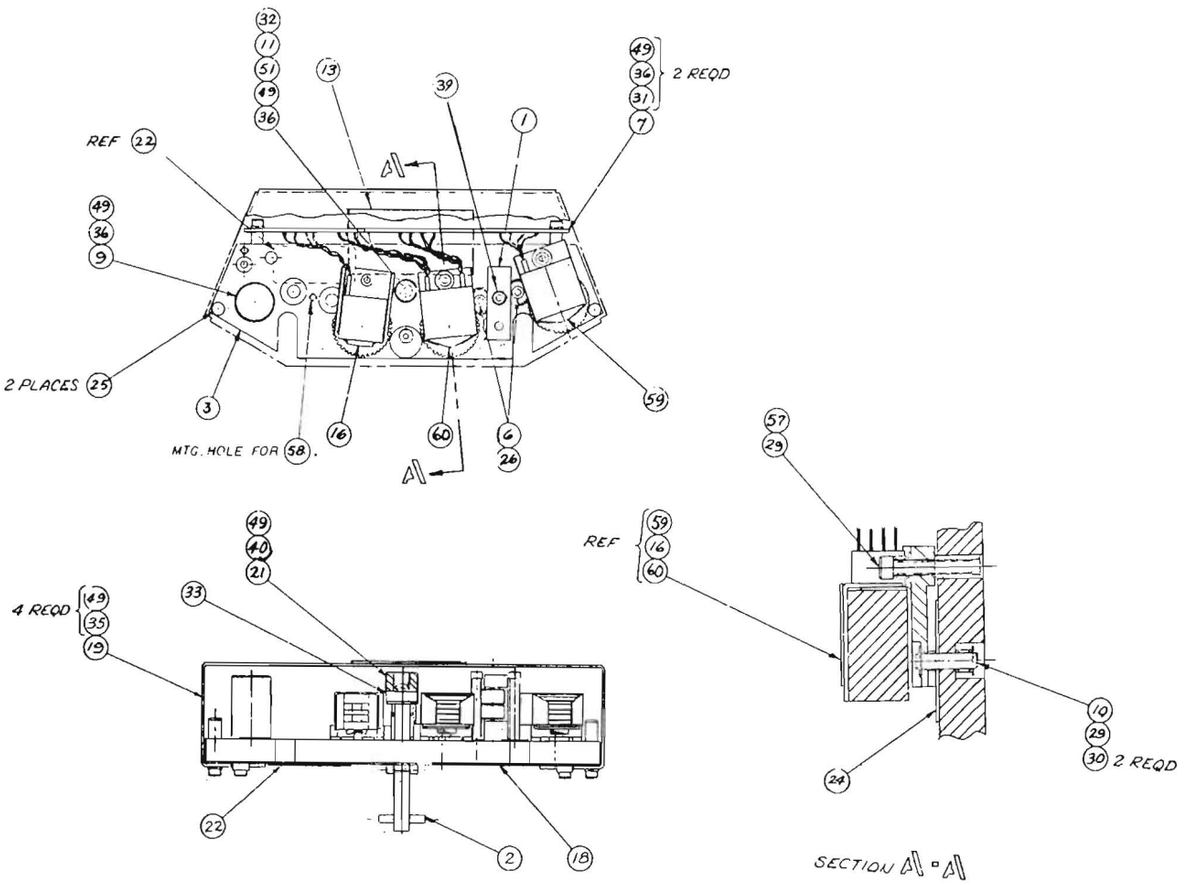
CONN	DIM A
P1	2.00
P2	2.50
P3	2.00
P4	1.50

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
1	4030402-AE	IDLER ASSEMBLY, SCRAPE FLUTTER		1	1	1	1	1	1
2	4041225-01	SHAFT ASSEMBLY, HEAD ASSY LOCK		1	1	1	1	1	1
3	4041237-02	PLATE ASSEMBLY, HEAD		1	1	1	1	1	1
4	4041238-01	SPACER ASSY, PINION GEAR		2	2	2	2	2	-
5	4041243-01	GUIDE ASSEMBLY, EDGE		2	2	2	2	2	-
6	4041265-01	PINION GEAR ASSY		1	2	2	2	2	2
7	4050846-01	P.W.A. HEAD CONNECTOR		1	1	1	1	1	1
8	4210361-01	GUIDE, EDGE HEAD		1	1	1	1	-	-
9	4210362-01	POST DUMMY HEAD		1	1	1	1	1	1
10	4210385-01	PIN, HEAD RETAINING		2	3	3	3	3	3
11	4220322-01	SPACER, LOCK SPRING		1	1	1	1	1	1
12	4240018-01	GEAR, MODIFICATION		2	2	2	-	-	-
13	4170342-01	LABEL, HEAD & PWA WARNING			1	1	1	1	1
14	4350234-01	HEAD STACK ASSY, TWO TRK, PLAY		1	1	1	1	-	-
15	4350235-01	HEAD STACK ASSY, TWO TRK, RECORD		1	1	1	1	-	-
16	4350236-01	HEAD STACK ASSY, TWO TRK, ERASE		1	1	1	1	1	1
17	4350234-02	HEAD STACK ASSY, TWO TRACK PLAY			1	1	1	1	-
18	4600092-01	SHIELD, HEADS BOTTOM		1	1	1	1	1	1
19	4600093-01	SHIELD, HEADS		1	1	1	1	1	1
20	4350235-03	HEAD STACK ASSY, TWO TRACK RECORD			1	1	1	1	-
21	4210390-01	DEFLECTOR, 1/4" TAPE			1	1	1	1	1
22	6000035-02	LABEL, I.D.			1	1	1	1	1
23	4240018-02	GEAR,MODIFICATION					1	-	-
24	4240022-01	GEAR AZIHUTH						3	3
25	4041243-02	GUIDE ASSY						2	2
26	087-514	GREASE, MOLYLUBE "G" PASTE		A/R	A/R	A/R	A/R	A/R	A/R
27	225-304	TAPE, PLASTIC ADHESIVE BACK		A/R					
28	352-442	SPRING, COMPRESSION, LEE LC-0556-3-MW		1					
29	352-445	SPRING, COMPRESSION, (LEE LC-0248-1-MW)		4	6	6	6	6	6
30	430-152	RING, RETAINING, (TRUARC #5133-12)		4	6	6	6	6	6
31	280-366	SPACER, PLAIN .18 O.D. X .18 LG			2	2	2	2	2
32	352-228	SPRING, COMPRESSION, (ASSOC C0360-045-1000M)			1	1	1	1	1
33	4210361-02	GUIDE, EDGE, HEAD						1	1
34	470-004	SCREW, CAP, HEX SOC #2-56X.37		2					
35	470-009	SCREW, CAP, HEX SOC #4-40X5/16		5	5		4	4	4
36	470-011	SCREW, CAP, HEX SOC #4-40X7/16		2	3	4	4	4	4
37	470-013	SCREW, CAP, HEX SOC #4-40X5/8		2	3	4	4	3	-

AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO. 92739 | LIST OF MATERIALS | LM- 4020417 SHEET 2 | P

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
~~38~~	~~470-013~~	~~SCREW, CAP, HEX SOC #5-32X3/8~~		~~1~~	~~-~~	~~-~~	~~-~~	~~1~~	~~-~~
39	470-136	SCREW, CAP, HEX SOC #4-40X7/8		1	1	1	1	1	1
40	470-476	SCREW, CAP, BUTTON HD 4-40X1/2		1	1	1	1	1	1
41									
42	232-007	EPOXY, EPON (#828)		1	-	A/R	A/R	A/R	-
43	232-008	U-CATALYST			-	A/R	A/R	A/R	-
44	232-031	RED RESIN DYE			-	A/R	A/R	A/R	-
45	501-169	WASHER, FLAT #4			-	2	2	2	-
~~46~~	~~501-009~~	~~WASHER, FLAT #6~~		~~1~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
~~47~~	~~501-751~~	~~WASHER, FLAT #4, FIBER~~		~~1~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
~~48~~	~~502-001~~	~~WASHER, SPRING #2~~		~~2~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
49	502-002	WASHER, SPRING #4		8	10	8	4	9	9
~~50~~	~~502-003~~	~~WASHER, SPRING #6~~		~~1~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~
51	502-389	WASHER, FLAT #4			1	1	1	1	1
52									
53									
54	600-105	SLEEVING, SHRINKABLE, 1/8 O.D.			A/R	A/R	A/R	A/R	-
55									
56									
57	4350345-01	SCREW, HEAD RACKING							3
58	4030402-AF	SCRAPE FLUTTER IDLER ACCESSORY	1						1
59	4350234-03	HEAD STACK ASSY, 2 TRACK PLAY							1
60	4350235-04	HEAD STACK ASSY, 2 TRACK RECORD							1

1 INDICATED COMPONENT IS AN ACCESSORY AND WILL BE ADDED IN THE SYSTEM AS DIRECTED BY THE SALES ORDER.



NOTES:

1. PART NO. IS 4020417-06.
2. MARK PART NO. WITH PREFIX "ASSY" PER BDI-1.
3. POLISHED SURFACE OF ITEM 3370 FACE BASE PLATE ASSY.
4. APPLY A SMALL AMOUNT OF GREASE, ITEM 26, TO SHAFT OF ITEM 6 BEFORE ASSY.
5. SCREW IN ITEM 57 UNTIL IT BOTTOMS.
6. ADJUST POSITION OF IDLER TO ACHIEVE A 1.5° TAPE WRAP. IDLER MUST SPIN FREELY. SCRIBE ALIGNMENT MARKS ON BASE PLATE WHERE SHOWN TO DESCRIBE IDLER YOKE POSITION.
7. DEMAGNETIZE COMPLETED ASSY.
8. DEMAGNETIZE TO TWO GAUSS BEFORE ASSEMBLY.

Assembly No. 4020417. Two Track Head Assembly, 1/4 inch

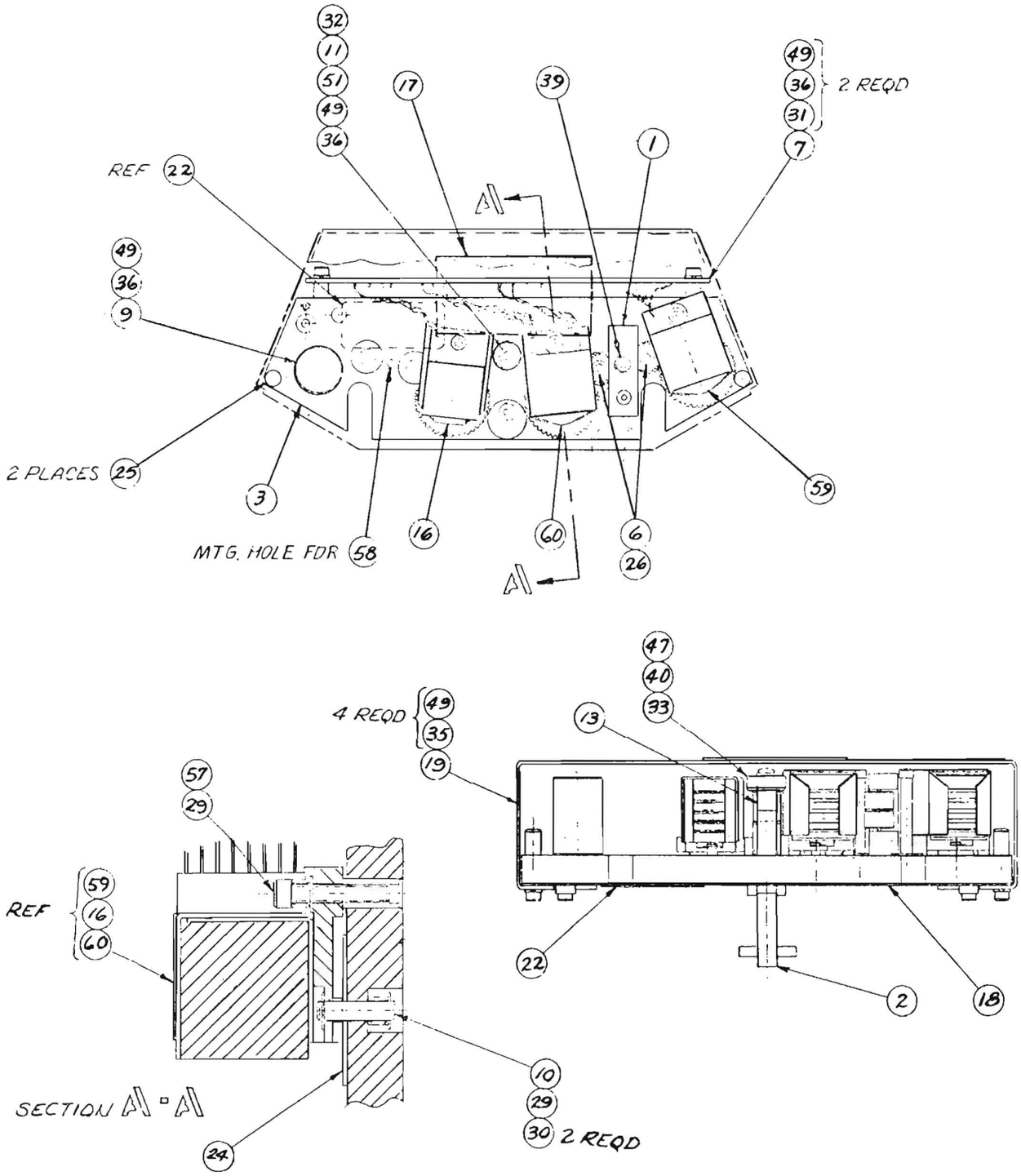
4020418-05 FOUR TRACK HEAD ASSEMBLY, 1/2 INCH REV. N
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER					
					-01	-02	-03	-04	-05	-06
1	4030402-AE		IDLER ASSEMBLY, SCRAPE FLUTTER		1	1		1	1	1
2	4041225-01		SHAFT ASSEMBLY, HEAD ASSY LOCK		1	1		1	1	1
3	4041237-02		PLATE ASSEMBLY, HEAD		1	1		1	1	1
~~4~~	~~4041238-01~~		~~SPACER ASSY, PINION GEAR~~		~~1~~					-
5	4041243-01		GUIDE ASSEMBLY, EDGE		2	2	2	2		-
6	4041265-01		PINION GEAR ASSY			2	2	2	2	2
7	4050837-01		P.W.A. HEAD CONNECTOR		1	1	1	1	1	1
8	4210361-01		GUIDE, EDGE HEAD		1	1	1	1		-
9	4210362-01		POST DUMMY HEAD		1	1	1	1	1	1
10	4210385-01		PIN, HEAD RETAINING		2	3	3	3	3	3
11	4220322-01		SPACER, LOCK SPRING		1	1	1	1	1	1
12	4240018-01		GEAR MODIFICATION		2	3	3	1	1	-
13	4290936-01		ADAPTER, 1/2 INCH TAPE		1	1	1	1	1	1
14	4350237-01		HEAD STACK ASSY, FOUR TRK, PLAY		1	1	1			-
15	4350238-01		HEAD STACK ASSY, FOUR TRK, RECORD		1	1	1			-
16	4350239-01		HEAD STACK ASSY, FOUR TRK. ERASE		1	1	1	1	1	1
17	4170342-01		LABEL, HEAD & PWA WARNING			1		1	1	1
18	4600092-01		SHIELD, HEADS BOTTOM		1	1		1	1	1
19	4600093-01		SHIELD, HEADS		1	1		1	1	1
20	4350237-02		HEAD STACK ASSY, FOUR TRACK, PLAY			1		1	1	-
21	4350238-02		HEAD STACK ASSY. FOUR TRACK, RECORD			1		1	1	-
22	6000035-02		LABEL, IDENTIFICATION			1		1	1	1
23	4240018-02		GEAR MODIFICATION				1	3		-
24	4240022-01		GEAR, AZIMUTH					1	3	3
25	4041243-02		GUIDE, ASSY						2	2
26	087-514		GREASE, MOLYLUBE "G" PASTE		A/R	A/R	A/R	A/R	A/R	A/R
~~27~~	~~225-304~~		~~TAPE, PLASTIC ADHESIVE BACK~~		~~A/R~~					-
~~28~~	~~352-442~~		~~SPRING, COMPRESSION, LEE LC-035F-3-MW~~		~~1~~					-
29	352-443		SPRING, COMPRESSION, LEE LC-024B-1-MW		4	6	6	6	6	6
30	430-152		RING, RETAINING, TRUARC #5133-12		4	6	6	6	5	6
31	280-366		SPACER, PLAIN, .18 O.D. X .18 LG			2	2	2	2	2
32	352-228		SPRING, COMPRESSION, ASSOC C0360-045-1000M			1	1	1	1	1
33	4210361-02		GUIDE, EDGE, HEAD						1	1
~~34~~	~~470-004~~		~~SCREW, CAP, HEX SOC #2-56X.32~~		~~2~~					-
35	470-009		SCREW, CAP, HEX SOC #4-40X5/16		5	5	4		4	4
36	470-011		SCREW, CAP, HEX SOC #4-40X7/16		2	3	4	4	4	4
37	470-013		SCREW, CAP, HEX SOC #4-40X5/8		2	3	3	3	3	-

AMPEX | Ampex Corporation Redwood City, California | CODE IDENT NO 07703 | LIST OF MATERIALS | LM- 4020418 SHEET 2 | N

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
~~38~~	~~470-018~~	~~SCREW, FLH SOC #6-32X3/8~~							
39	470-136	SCREW, CAP, HEX SOC #4-40X7/8							1
40	470-643	SCREW, CAP, BUTTON HD 4-40X3/4		1	1	1	1	1	1
41									
42	232-007	EPOXY, (EPON #828)			A/R	A/R	A/R	A/R	-
43	232-008	U-CATALYST			A/R	A/R	A/R	A/R	-
44	232-031	RED RESIN DYE			A/R	A/R	A/R	A/R	-
45	501-169	WASHER, FLAT #4			2	2	2	2	-
~~46~~	~~501-000~~	~~WASHER, FLAT #0~~							-
47	501-751	WASHER, FLAT #4, FIBER						1	1
~~48~~	~~502-001~~	~~WASHER, SPRING #2~~							-
49	502-002	WASHER, SPRING #4		8	10	9	9	9	9
~~50~~	~~502-003~~	~~WASHER, SPRING #6~~							-
51	502-389	WASHER, FLAT #4						1	1
52									
53									
54	600-105	SLEEVING, SHRINKABLE, 1/8 O.D.			A/R	A/R	A/R	A/R	-
55									
56									
57	4350345-01	SCREW, HEAD RACKING							3
58	4030402-AF	SCRAPE FLUTTER IDLER ACCESSORY	1					1	1
59	4350237-03	HEAD STACK ASSY, 4 TRACK PLAY							1
60	4350238-03	HEAD STACK ASSY, 4 TRACK RECORD							1

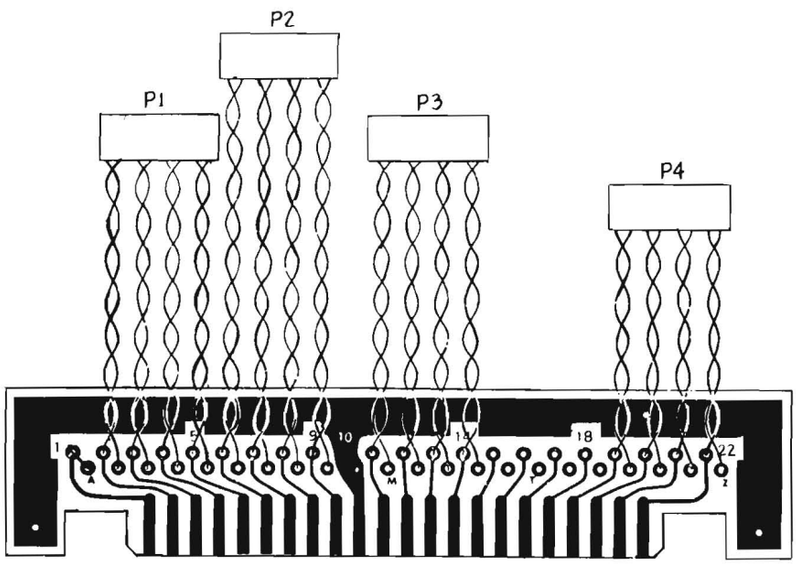
1 INDICATED COMPONENT IS AN ACCESSORY AND WILL BE ADDED IN THE SYSTEM AS DIRECTED BY THE SALES ORDER.



Assembly No. 4020418. Four Track Head Assembly, 1/2 inch

4050837-01 HEAD CONNECTOR PWA, 4 CHANNEL REV. –
NEXT HIGHER ASSEMBLY 4020418

ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01
1					
2	139-865		CONNECTOR ASSEMBLY		4
3	615-090		WIRE, BARE, #24 AWG		A/R

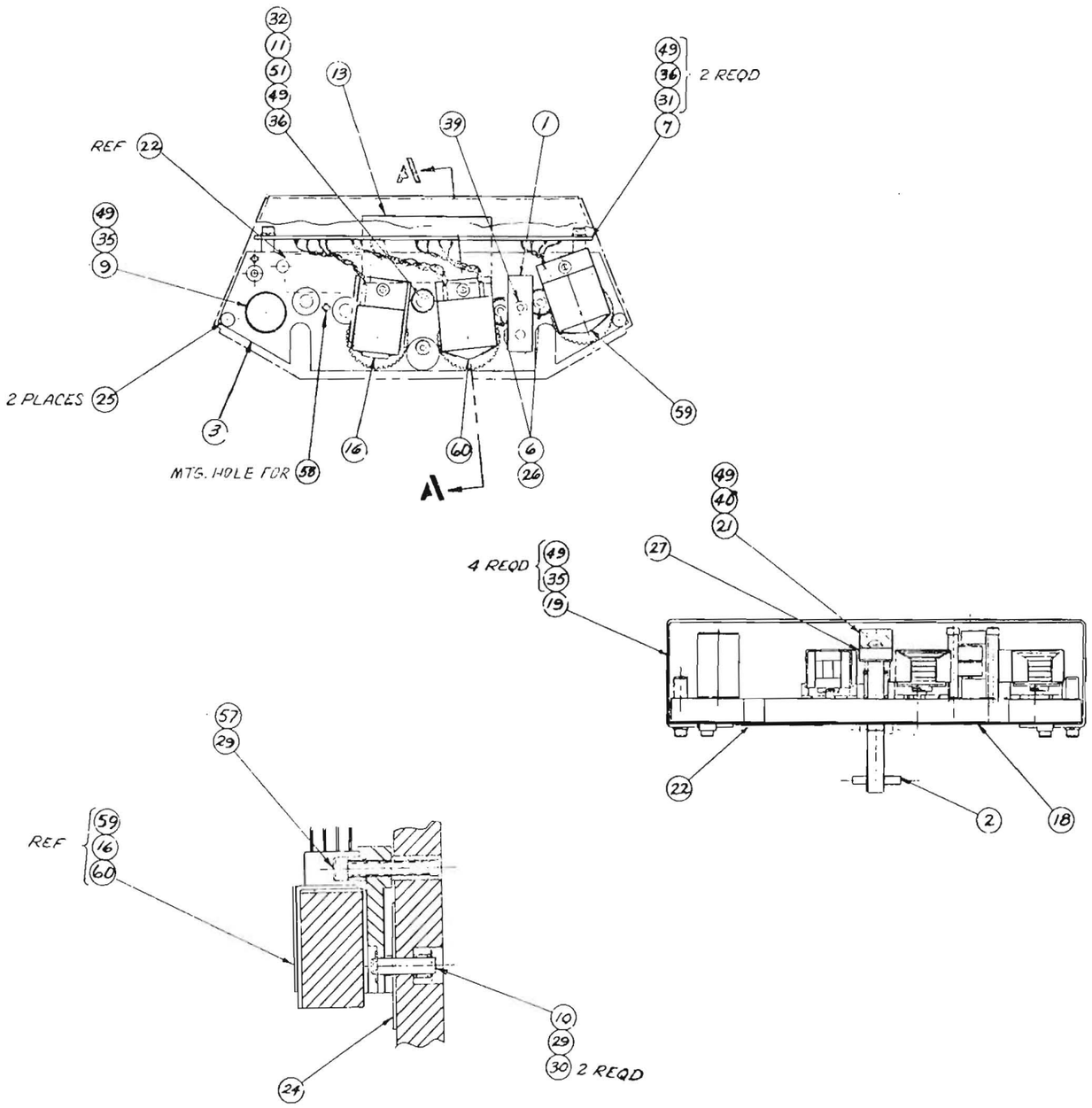


ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
1	4030402-AE		IDLER ASSEMBLY, SCRAPE FLUTTER		1	1	1
2	4041225-01		SHAFT ASSEMBLY, HEAD ASSY LOCK		1	1	1
3	4041237-01		PLATE ASSEMBLY, HEAD		1	1	1
4							
5	4041243-01		GUIDE ASSEMBLY, EDGE		2	-	-
6	4041265-01		PINION GEAR ASSY		2	2	2
7	4050846-01		P.W.A. HEAD CONNECTOR		1	1	1
8	4210361-01		GUIDE, EDGE HEAD		1	-	-
9	4210362-01		POST, DUMMY HEAD		1	1	1
10	4210385-01		PIN, HEAD RETAINING		2	3	3
11	4220322-01		SPACER, LOCK SPRING		1	1	1
12	4240018-01		GEAR, MODIFICATION		1	-	-
13	4170342-01		LABEL, HEAD & PWA WARNING		1	1	1
14	4350318-01		HEAD STACK ASSY, PLAY, EUROPEAN STEREO		1	1	-
15	4350317-01		HEAD STACK ASSY, RECORD, EUROPEAN STEREO		1	1	-
16	4350233-01		HEAD STACK ASSY, FULL TRACK, ERASE		1	1	1
17							
18	4600092-01		SHIELD, HEADS BOTTOM		1	1	1
19	4600093-01		SHIELD, HEADS		1	1	1
20							
21	4210390-01		DEFLECTOR, 1/4" TAPE		1	1	1
22	6000035-02		LABEL, I.D.		1	1	1
23							
24	4240022-01		GEAR, AZIMUTH		3	3	3
25	4041243-02		GUIDE ASSY, EDGE		2	2	2
26	087-514		GREASE, MOLYLUBE "G" PASTE		A/R	A/R	A/R
27	4210361-02		GUIDE EDGE HEAD		1	1	1
28							
29	352-443		SPRING, COMPRESSION, (LEE LC-0248-1-MW)		6	6	6
30	430-152		RING, RETAINING, TRUARC #5133-12		6	6	6
31	280-366		SPACER, PLAIN .18 O.D. X .18 LG		2	2	2
32	352-228		SPRING, COMPRESSION, (ASSOC CO360-045-1000M)		1	1	1
33							
34							
35	470-009		SCREW, CAP, HEX SOC #4-40X5/16		5	5	5
36	470-011		SCREW, CAP, HEX SOC #4-40X7/16		3	3	3
37	470-013		SCREW, CAP, HEX SOC #4-40X5/8		4	4	-

AMPEX	Ampex Corporation REDWOOD CITY CALIFORNIA	LIST OF MATERIALS	LM- 4020440 SHEET 2	E

ITEM NO.	AMPEX PART NO.	PART DESCRIPTION	REF DESIG	VENDOR OR MIL PART NUMBER	QUANTITY PER UNIT 01	02	03	04	05
38									
39	470-136	SCREW, CAP, HEX SOC #4-40 X 7/8					1		
40	470-476	SCREW, CAP, BUTTON HD 4-40 X 1/2				1	1		
41									
42	232-007	EPOXY, EPON 828				A/R	-		
43	232-008	U-CATALYST				A/R	-		
44	232-031	RED RESIN DYE				A/R	-		
45	501-169	WASHER, FLAT #4				2	-		
46									
47									
48									
49	502-002	WASHER, LOCK, #4				3	9		
50									
51	502-389	WASHER, FLAT, #4				1	1		
52									
53									
54	600-105	SLEEVING, SHRINKABLE, 1/8 O.D.			A/R	A/R	-		
55									
56									
57	4350345-01	SCREW, HEAD RACKING					3		
58	4030402-AF	SCRAPE FLUTTER IDLER ACCESSORY			1	1	1		
59	4350318-02	HEAD STACK ASSY, PLAY EUROPEAN STEREO					1		
60	4350317-02	HEAD STACK ASSY, RECORD EUROPEAN STEREO					1		

1 INDICATED COMPONENT IS AN ACCESSORY AND WILL BE INCLUDED IN THE SYSTEM AS DIRECTED BY THE SALES ORDER.



SECTION A-A

Assembly No. 4020440. Stereo Head Assembly (European)

4010255-01 MISCELLANEOUS PARTS KIT, 1/4 INCH REV. F

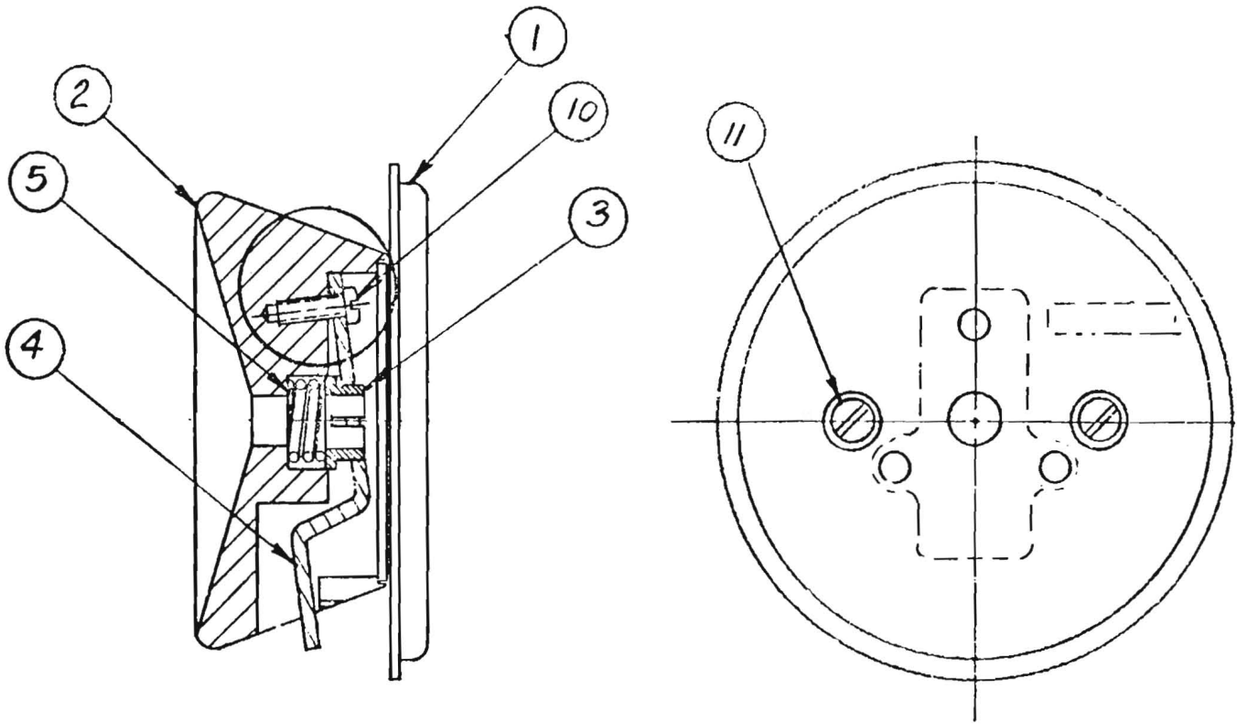
NEXT HIGHER ASSEMBLY 4010294,4010295,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4040492-10	HOLD DOWN, KNOB		2
2				
3				
4	102-099	REEL, EMPTY, 1/4" X 10 1/2" AND BOX		1
5				
6	~~4890407~~	~~MANUAL, INSTRUCTION~~		~~1~~
7	4890407	MANUAL, OPERATION AND MAINT.		1
8	139-840	CONNECTOR, I/O, 24 PIN		1
9				
10	360-005	TOOL, KEY, HEX, .062 AF		1
11	360-006	TOOL, KEY, HEX, .078 AF		1
12	360-003	TOOL, KEY, HEX, .094 AF	1	1
13	360-436	TOOL, KEY, HEX, .109 AF		1
14	360-435	TOOL, KEY, HEX, .156 AF		1
15	360-434	TOOL, KEY, HEX, .187 AF		1
16	~~070-413~~	~~CAP, FUSE (5MM X 20MM)~~		~~2~~
17				
18	718-089	BAG, POLYETHYLENE, 4X4		AR
19	070-424	FUSE (BUSS MDX5-125V)		5
20	070-425	FUSE (BUSS MDA4-250V)		5

1 PACKAGE ITEMS 10 THROUGH 15 IN ONE BAG, ITEM 18

4040492-10 REEL KNOB ASSEMBLY REV. M
NEXT HIGHER ASSEMBLY 4010255

ITEM NO.	PART NUMBER	DWG SIZE	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -10
1	4040493-10	B	REEL KNOB, SUB ASSEMBLY		1
2	4100136-10	C	REEL KNOB		1
3	4220164-10	B	COLLET, REEL HOLD DOWN		2
4	4230176-10	B	LEVER, REEL KNOB		1
5	4270189-10	A	SPRING, REEL HOLD DOWN		1
6					
7					
8	087-023		GLYPTAL, RED		a/r
9					
10	476-062		SELF-TAPPING SCREW, #6-32 x 3/8 LG, PAN HEAD, XREC.		1
11	476-226		SELF-TAPPING SCREW, #8-32 x 3/8 LG, PAN HD, SLOTTED.		2
12	718-001		BAG, POLYETHELENE 4 x 2 x 8		1



Assembly No. 4040492. Reel Knob

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4040492-10	HOLD DOWN, KNOB		2
2	4890407	MANUAL, OPERATION AND MAINT.		1
3				
4	4690003-20	REEL, EMPTY, 1/2" X 10 1/2"		1
5				
6	~~4890402~~	~~MANUAL, INSTRUCTION~~		~~1~~
7				
8	139-840	CONNECTOR, I/O, 24 PIN		2
9				
10	360-005	TOOL, KEY, HEX, .062 AF		1
11	360-006	TOOL, KEY, HEX, .078 AF		1
12	360-003	TOOL, KEY, HEX, .094 AF	1	1
13	360-436	TOOL, KEY, HEX, .109 AF		1
14	360-435	TOOL, KEY, HEX, .156 AF		1
15	360-434	TOOL, KEY, HEX, .187 AF		1
16	~~070-413~~	~~CAP, FUSE (5MM X 20 MM)~~		~~2~~
17				
18	718-089	BAG, POLYETHYLENE, 4X4		AR
19	070-424	FUSE (BUSS MDX5-125V)		5
20	070-425	FUSE (BUSS MDA4-250V)		5

1 PACKAGE ITEMS 10 THROUGH 15 IN ONE BAG ITEM 18.

4010258-AE CABINET ASSEMBLY (1 AND 2 CHANNELS) REV. AA
4010258-AF CABINET ASSEMBLY (3 AND 4 CHANNELS)
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

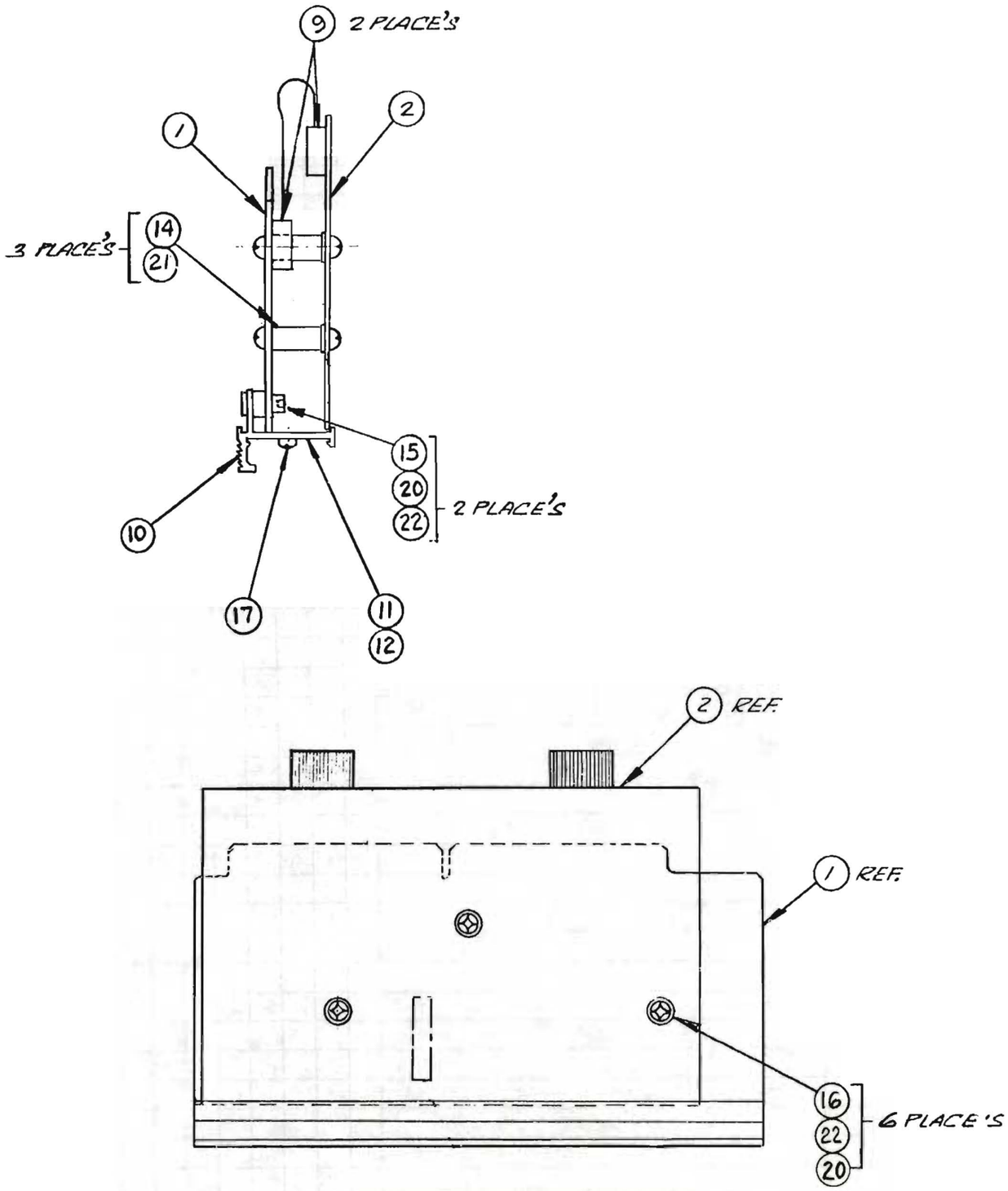
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -AB	-AC	-AD	-AE	-AF	
1	~~4010267-01~~	~~CHASSIS ASSY, FRONT DOOR~~	2						
2	4041260-01	REAR PANEL ASSY, CONSOLE	2	1	1	1	1	1	
3	4150354-AC	PANEL, SIDE CONSOLE L.H.		1	1	1	1	1	
4	4150354-AD	PANEL, SIDE CONSOLE R.H.		1	1	1	1	1	
5	~~4150366-01~~	~~PANEL, FRONT, UPPER CONSOLE~~							
6	~~4260346-01~~	~~BRACKET, HINGE, L.H. CONSOLE~~			1	1			
7	~~4260345-01~~	~~BRACKET, HINGE, R.H. CONSOLE~~		1	1				
8	~~4260347-01~~	~~BRACKET, DOOR CONSOLE~~		2	2				
9	~~4260348-AA~~	~~BRACKET, REAR CONSOLE L.H.~~			1	1			
10	~~4260348-AB~~	~~BRACKET, REAR CONSOLE R.H.~~			1	1			
11	~~4260347-AA~~	~~BRACKET, DRIVE PANEL CONSOLE L.H.~~							
12	~~4260347-AB~~	~~BRACKET, DRIVE PANEL CONSOLE R.H.~~		1	1				
13	~~4250349-01~~	~~BRACKET, BRIDGE SUPPORT CONSOLE L.H.~~			1	1			
14	~~4250349-02~~	~~BRACKET, BRIDGE SUPPORT CONSOLE R.H.~~		1	1	1			
15	~~4290339-01~~	~~ENCLOSURE, TOP BRIDGE~~		1	1	1	1	1	
16	4290356-02	ENCLOSURE, BOTTOM BRIDGE 1 OR 2 CH		1	-	1	-	1	-
17	4290849-01	ENCLOSURE, BOTTOM BRIDGE 3 OR 4 CH		-	1	-	1	-	1
18	4150358-01	EXTRUSION ASSY, CONSOLE FRONT		1	1	1	1	1	1
19	4980027-02	END PLUG, CONSOLE FRONT		2	2	2	2	2	2
20	470-036	SCREW, CAP, HEX SOCKET #10-32X.375		36	42	36	42	28	36
21	470-033	SCREW, CAP, HEX SOCKET #10-32X.500		2	4	2	4	8	4
22	473-704	SCREW, CAP, BUTTON HD HEX SOC #10-32X.375		16	14	16	14	10	8
23	4150213-01	FOOT, CASE		4	4	4	4	4	4
24	501-070	WASHER, PLAIN #10		38	38	42	45	41	47
25	501-779	WASHER, PLAIN #10 BLACK OXIDE		16	14	16	16	10	8
26	502-005	WASHER, LOCK #10		38	38	43	45	45	51
27	591-053	FAN UNIT, ROTRON WHISPER		1	1	1	1	1	1
28	591-140	FAN PART, CORD SET		1	1	1	1	1	1
29	591-207	FAN PART, GUARD, WIRE		1	1	1	1	1	1
30	470-022	SCREW, CAP, HEX SOC, #6-32 X 3/4 LG		4	4	4	4	4	4
31	501-009	WASHER, FLAT #6		8	8	8	8	8	8
32	502-003	WASHER, LOCK SPLIT, #6		4	4	4	4	4	4
33	496-005	NUT, HEX, ASSEM WASHER #6-32		4	4	4	4	4	4
34	~~167-347~~	~~CONNECTOR, FEMALE~~		1	1				
35	~~167-349~~	~~CONTACT, PIN~~		2	2				
36	4150360-02	BAFFLE, CONSOLE		1	1	1	1	1	1
37	4150361-01	PANEL ASSY, FRONT UPPER CONSOLE			1	1	1	1	1

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA | CODE IDENT NO. 92739 | LIST OF MATERIALS | LM- 4010258 SHEET 2 | AA

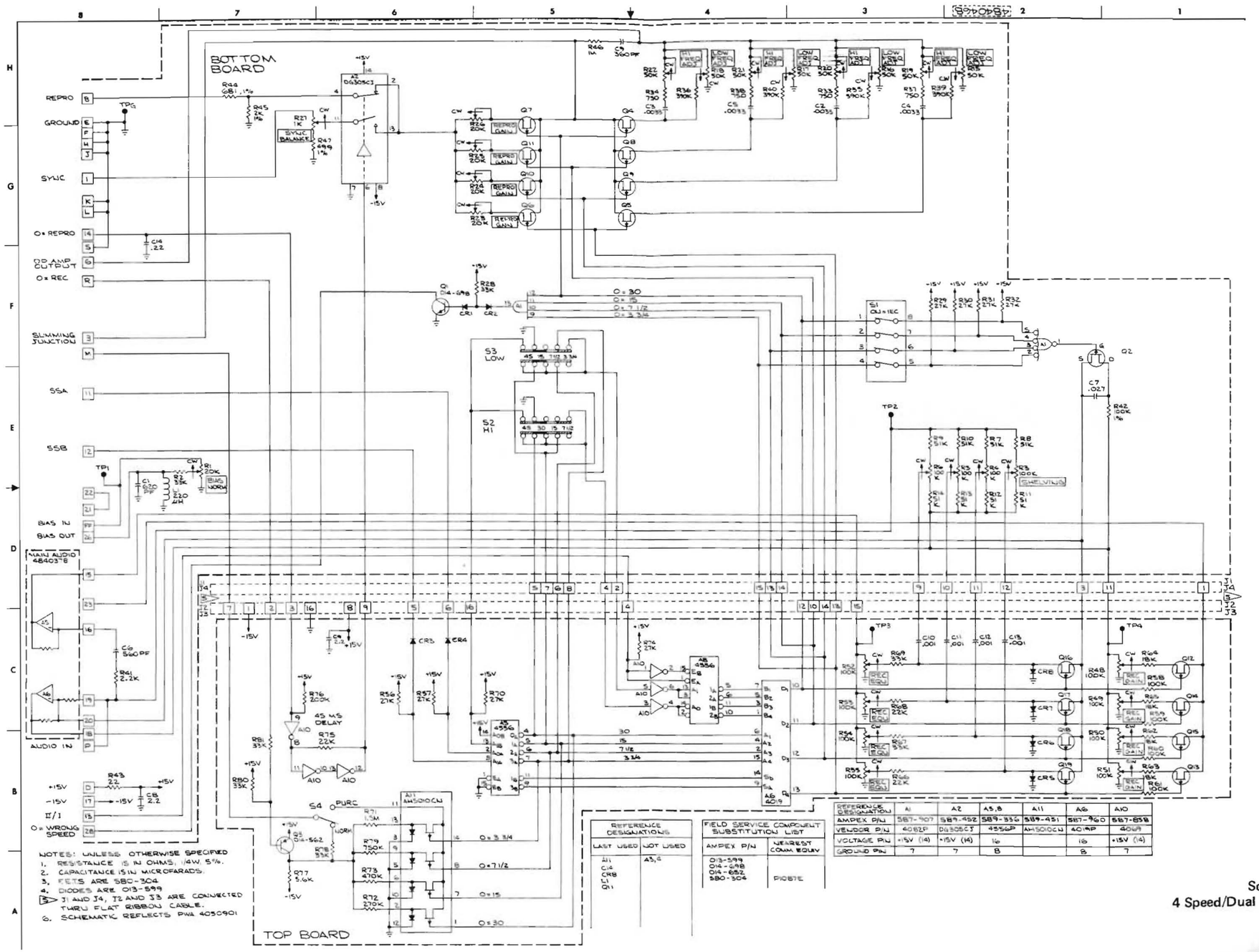
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -AA	-AB	-AC	-AD	-AE	-AF
38	167-450	CONNECTOR BODY, FEMALE SHELL, 3 POS				1	1	1	1
39	166-227	CONTACT PIN 16-18 AWG				2	2	2	2
40	4041259-03	HINGE ASSY FRONT DOOR						1	1
41	~~269-112~~	~~CORK, COMPOSITION, 1/2 WD X 1/32 THK~~				A/R	A/R	A/R	A/R
42	470-041	SCREW, CAP, HEX SOC, #10-32 X 7/8 LG				5	7	5	7
43	4290839-02	ENCLOSURE, TOP BRIDGE						1	1
44	~~4260578-AA~~	~~BRACKET, CONSOLE BRIDGE SUPPORT~~						1	1
45	~~4260578-AC~~	~~BRACKET, CONSOLE BRIDGE SUPPORT~~						1	1
46	~~4150372-AC~~	~~PANEL, BACKUP, SIDE LH~~							
47	~~4150372-AB~~	~~PANEL, BACKUP, SIDE LH~~						1	
48	4150375-AA	PANEL, BACKUP, SIDE CONSOLE, LH						1	1
49	4150375-AB	PANEL, BACKUP, SIDE CONSOLE, RH						1	1
50	4220327-02	SPACER				4	4	4	4
51	302-365	STRAP, CABLE, NYLON #10				1	2	2	2
52									
53	~~310-890~~	~~LATCH ASSY, TURN-OCK~~						2	2
54	501-008	WASHER, FLAT #4						5	5
55	496-004	NUT, HEX, ASSEM WASHER 4-40						5	5
56	4260578-AC	BRACKET, CONSOLE BRIDGE SUPPORT						1	1
57	4260578-AD	BRACKET, CONSOLE BRIDGE SUPPORT						1	1
58	470-040	SCREW, CAP, HEX SOC, 10-32 X.750 LG				4	4	4	4
~~59~~	~~501-011~~	~~WASHER, #10 SHAEL PATTERN~~							
60	310-863	RECEPTACLE, CLIP-ON						2	2
61									
62									
63	470-659	SCREW, BUTTON HD, HEX SOC, 1/4-20 X 1 1/4 LG (BLK OXIDE)				4	4	4	4
64	502-430	WASHER, .281 I.D. X .625 O.D. X .06 THK (BLK OXIDE)				4	4	4	4
65	922-623	PLASTIC FOAM, SHEET, 9" X 11" X 3/8 THK				1	1	1	1
66	718-006	PACKAGING MATERIAL BAG, 12" X 14"				A/R	A/R	A/R	A/R
67	718-089	PACKAGING MATERIAL, BAG 4" X 4"				1	1	1	1

4050901-01 4 SPEED/DUAL PADNET ASSEMBLY REV. B
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4050902-02		PWA, PADNET, BOTTOM BD		1
2	4050903-02		PWA, PADNET, TOP BD		1
3					
4	4840468		SCHEMATIC		A
5					
6					
7					
8					
9	4050915-01		CABLE ASSY		2
10	4120043-01		HANDLE, 4 SPEED/DUAL STANDARD PADNET		1
11	4170350-01		LABEL, 4 SPEED PADNET		1
12	4170351-01		LABEL, DUAL STANDARD PADNET		1
13					
14	280-083		SPACER, THREADED, PLAIN, 4-40 X .500 LG X .250 OD		3
15	470-010		SCREW, CAP, 4-40 X .375 LG		2
16	471-061		SCREW, PAN, 4-40 X .312 LG		6
17	473-592		SCREW, BINDER HD, 2-56 X 3/16 LG		1
18					
19					
20	501-169		WASHER, FLAT, SM. PATTERN, #4		8
21	501-751		WASHER, FLAT, FIBER, #4, .032 THK		3
22	502-002		WASHER, HELICAL, #4		8



Assembly No. 4050901. 4 Speed/Dual PADNET



Schematic No. 4840468A.
4 Speed/Dual Standard PADNET PWA
(Top Board)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1					
2					
3					
4	4840468	SCHEMATIC	(F)	A	
5					
6					
7	013-599	DIODE, SI, GEN PURP. (1N4531)	CR3-8	6	6
8					
9	014-652	TRANSISTOR, PNP (2N3906)	Q3	1	1
10	580-304	TRANSISTOR, FET, P-CHAN, (P1087E)	Q12-19	8	8
11					
12					
13					
14	055-166	CAPACITOR, MYLAR, .001 uF, 5%, 50V	C10-13	4	4
15					
16	037-367	CAPACITOR, TANT, TUB, 2.2uF, 10%, 20V	C9	1	1
17					
18					
19					
20					
21	066-718	RESISTOR, C.F., 5.6K, 5%, 1/4W	R77	1	1
22	066-832	18K,	R62-65	4	4
23					
24	066-712	22K,	R66,68,75	3	3
25	066-866	27K,	R56,57,70,74	4	4
26	066-847	33K,	R67,69,78,80,81	5	5
27					
28	066-849	100K,	R58-61	4	4
29	066-853	200K,	R76	1	1
30	076-050	270K,	R72	1	1
31					
32	066-652	470K,	R73	1	1
33	076-055	750K	R79	1	1
34	076-014	RESISTOR, C.F., 1.5M, 5%, 1/4W	R71	1	1
35					
36					
37					

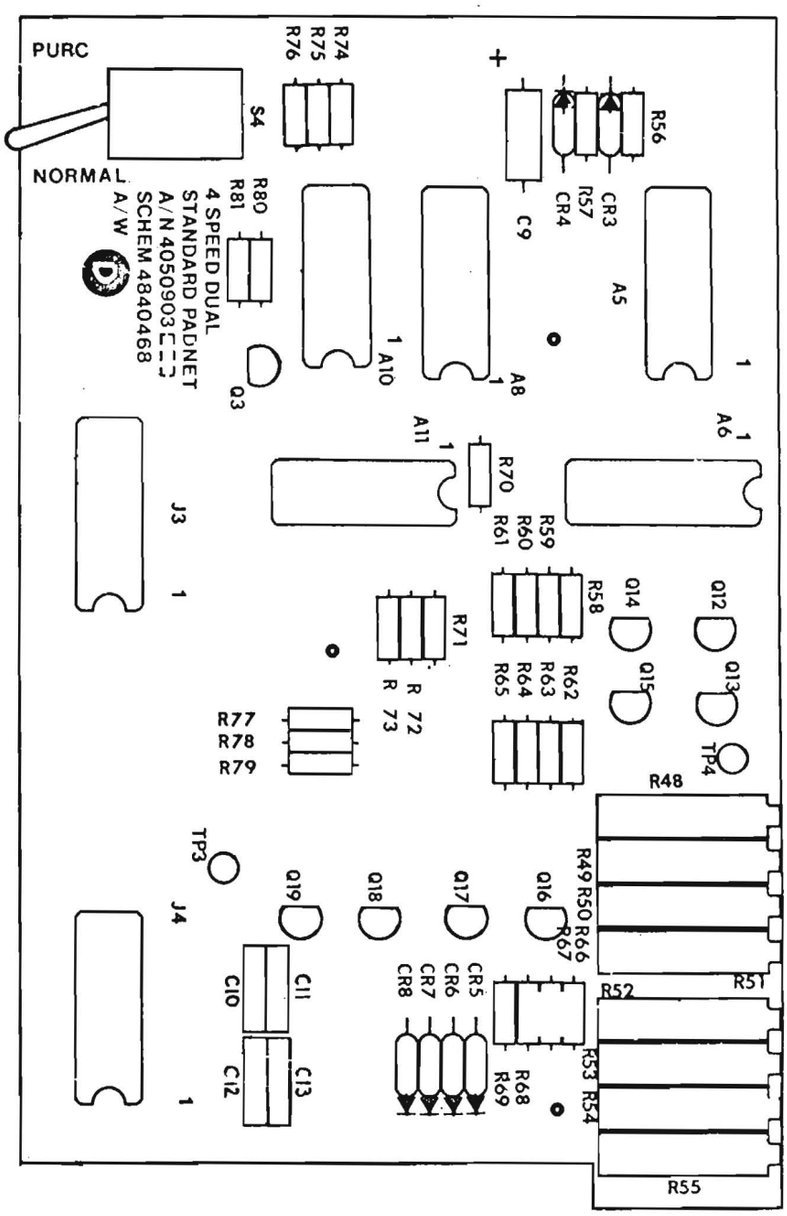
AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4050903 SHEET 2	REV A

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
38	058-898	RESISTOR, VARIABLE, 20K	R48-55	8	-
39	075-199	RESISTOR, VARIABLE, 100K	R48-55	-	8
40					
41					
42	589-336	IC, DUAL 1 OF 4 DECODER (4556P) ⚠1	A5,8	2	2
43	587-960	IC, QUAD AND OR SELECT GATE (4019P) ⚠1	A6	1	1
44	587-858	IC, HEX INVERTER (4069) ⚠1	A10	1	1
45	589-451	IC, FET SWITCH, 4-SPST (AH5010CN) ⚠1	A11	1	1
46					
47					
48	120-876	SWITCH, TOGGLE, SPDT	S4	1	1
49					
50					

NOTES:

⚠1 STATIC SENSITIVE

SPECIAL HANDLING REQUIRED



Assembly No. 4050903. 4 Speed/Dual Standard PADNET PWA (Top Board)

4050902-02 4 SPEED/DUAL STANDARD PADNET PWA REV. C
(BOTTOM BOARD)
NEXT HIGHER ASSEMBLY 4050901

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1				-01	-03
2					
3					
4	4840468	SCHEMATIC		(+)	(-)
5					
6					
7					
8	013-599	DIODE, SI, GEN. PURP. (2N4531)	CR1,2	2	2
9					
10	014-698	TRANSISTOR, NPN (2N3565)	Q1	1	1
11	580-304	TRANSISTOR, FET, P-CHAN (P1087E)	Q2,4-11	9	9
12					
13					
14	034-241	CAPACITOR, MICA, 360pF, 1%, 50V	C9	1	1
15	034-931	CAPACITOR, MICA, 560pF 5%, 50V	C6	1	1
16	034-228	CAPACITOR, MICA, 620pF, 5%, 50V	C1	1	1
17					
18	055-167	CAPACITOR, MYLAR, .0033uF, 5%, 50V	C2-5	4	4
19	035-815	CAPACITOR, MYLAR, .027uF, 5%, 50V	C7	1	1
20					
21	064-567	CAPACITOR, CER, 0.22uF, 10%, 50V	C14	1	1
22	037-367	CAPACITOR, TANT, TUB, 2.2uF, 20V	C8	1	1
23					
24	062-913	RESISTOR, M.F., 681 OHM, 1%, 1/8W	R44	1	1
25	062-902	M.F., 499 OHM, 1%, 1/8W	R47	1	1
26	062-601	M.F., 100K OHM, 1%, 1/8W	R42	1	1
27					
28	066-660	CF, 22 OHM, 5%, 1/4W	R43	1	1
29	066-820	CF, 750 OHM, 5%, 1/4W	R33,34,37,38	4	4
30	066-876	CF, 2.0K OHM, 5%, 1/4W	R45	1	1
31	066-689	2.2K OHM	R41	1	1
32	066-866	27K OHM	R29-32	4	4
33					
34	066-847	33K OHM	R2,28	2	2
35	066-867	51K OHM	R7-14	8	8
36	076-053	390K OHM	R35,36,39,40	4	4
37	066-673	RESISTOR, CF, 1.0 MEG, 5%, 1/4W	R46	1	1

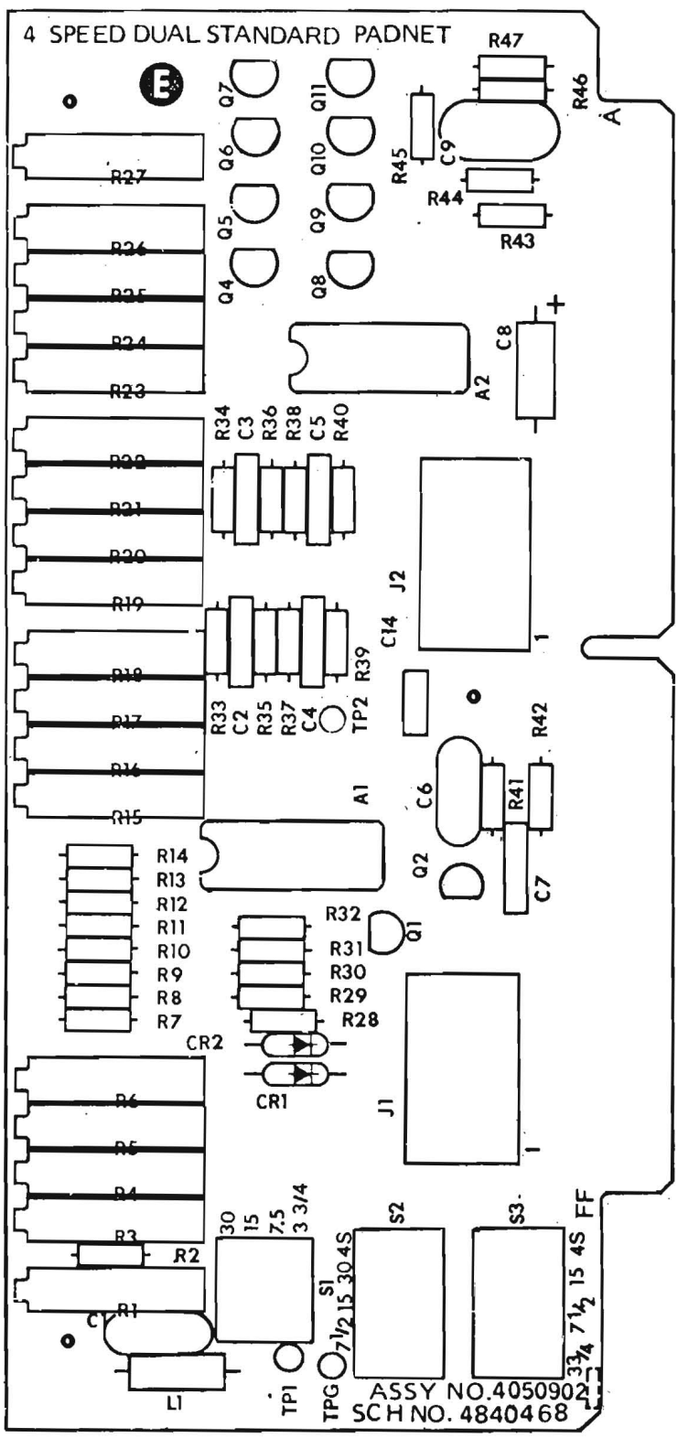
AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO. 92739 | LIST OF MATERIALS | LM-4050902 SHEET 2 OF 2 | REV C

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
38	058-767	RESISTOR, VARIABLE, 15T, 1K	R27	1	1
39	058-898	20K	R1,23-26	5	5
40	058-917	50K	R15-22	8	8
41	075-199	RESISTOR, VARIABLE, 15T, 100K	R3-6	4	4
42					
43					
44	119-556	SWITCH, SLIDE, 2 POLE, 4 POSITION	S2,3	2	2
45	119-292	SWITCH, 8 PIN DIP, 4-SPST	S1	1	1
46					
47					
48	540-003	INDUCTOR, 220uH	L1	1	1
49					
50	589-452	IC, ANALOG SWITCH, (DG305CJ) [1]	A2	1	1
51	587-907	IC, DUAL 4-INPUT AND (4082P) [1]	A1	1	1
52					
53					
54					
55					

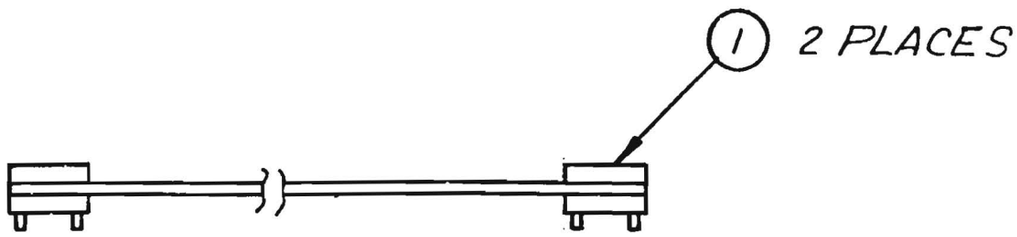
NOTE:

[1] STATIC SENSITIVE

SPECIAL HANDLING REQUIRED



Assembly No. 4050902. 4 Speed/Dual Standard PADNET PWA (Bottom Board)



1	2	617-646	FLAT CABLE, 16 CONDUCTOR		
2	1	140-200	16 PIN CONNECTOR		
01	ITEM NO.	PART NUMBER		DESCRIPTION	
	PARTS LIST				

Assembly No. 4050915. 4 Speed/Dual PADNET Cable

4010319-AA CUE AMPLIFIER KIT (PORTABLE) REV. –
4010319-AB CUE AMPLIFIER KIT (RACK MOUNT)
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

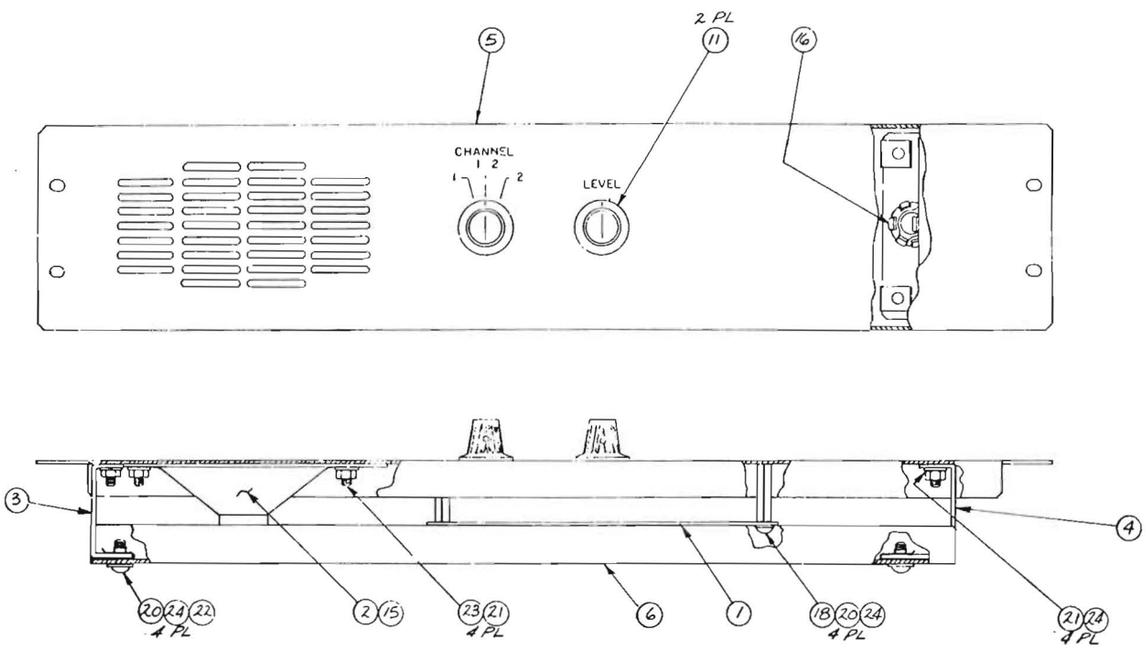
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -AA	-AB
1	4260635-AA	BRACKET, PANEL MOUNTING		1	-
2	4260635-AB	BRACKET, PANEL MOUNTING		1	-
3	4291045-01	PANEL, FILLER, CONSOLE		1	-
4	4291046-01	PANEL, FILLER, PORTABLE & RACK MOUNTING		-	1
5	4020462-01	CUE AMPLIFIER ASSEMBLY		1	1
6	4051008-01	CABLE ASSEMBLY		1	1
7	473-703	SCREW, #8-32 X .37 LG, BUTTON HD., HEX SOCK DRIVE		6	8
8	498-600	NUT, #8-32, SHEET SPRING "U" SHAPE		-	4
9					
10	501-780	WASHER, #8 PLAIN, BLACK		6	8
11					
12					
13					
14	6000035-02	LABEL, IDENTIFICATION	1	1	1
15					
16	4890421-01	INSTALLATION INSTRUCTIONS		1	1

NOTES:

1. MARK CATALOG NUMBER AND ATTACH LABEL TO REAR OF CUE AMPLIFIER ASSEMBLY.

4020462-01 CUE AMPLIFIER ASSEMBLY REV. A
NEXT HIGHER ASSEMBLY 4010319

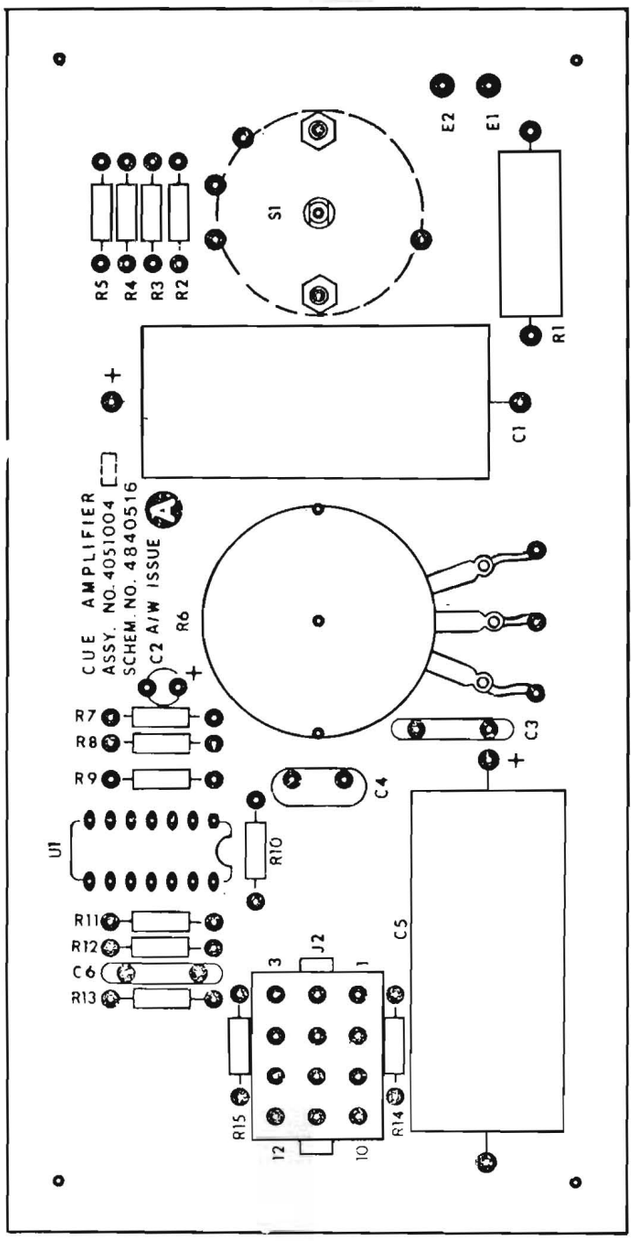
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4051004-01		P.W. ASSEMBLY, CUE AMPLIFIER		1
2	4170363-01		GRILLE CLOTH, SPEAKER		1
3	4260636-01		BRACKET, END		1
4	4260637-01		BRACKET, PHONE JACK		1
5	4291043-01		PANEL, MONITOR CONSOLE		1
6	4291044-01		PANEL, CUE AMPLIFIER, BACK		1
7	4840516		SCHEMATIC, CUE AMPLIFIER		A
8					
9					
10					
11	6000006-20		KNOB, 5/8" SKIRTED, BLACK		2
12	6000035-01		LABEL, PART NUMBER & SERIAL		1
13					
14					
15	104-028		SPEAKER, 3" X 5" OVAL		1
16	148-002		CONNECTOR, PHONE JACK, 2 COND.	J3	1
17					
18	283-237		SPACER, #8-32 X 1 LG, PLAIN, HEX, .250 AF		4
19					
20	475-044		SCREW, #8-32 X .37 LG, PAN HD., XREC, SEM		8
21	496-006		NUT, #8-32, SEM		8
22	498-600		NUT, #8-32, SHEET SPRING "U" SHAPE		4
23	501-190		WASHER, #8, PLAIN, SMALL PATTERN		4
24	501-205		WASHER, #8, PLAIN, REGULAR		12
25					
26			WIRE, STRANDED, INSULATED, 22 GA.		A/R



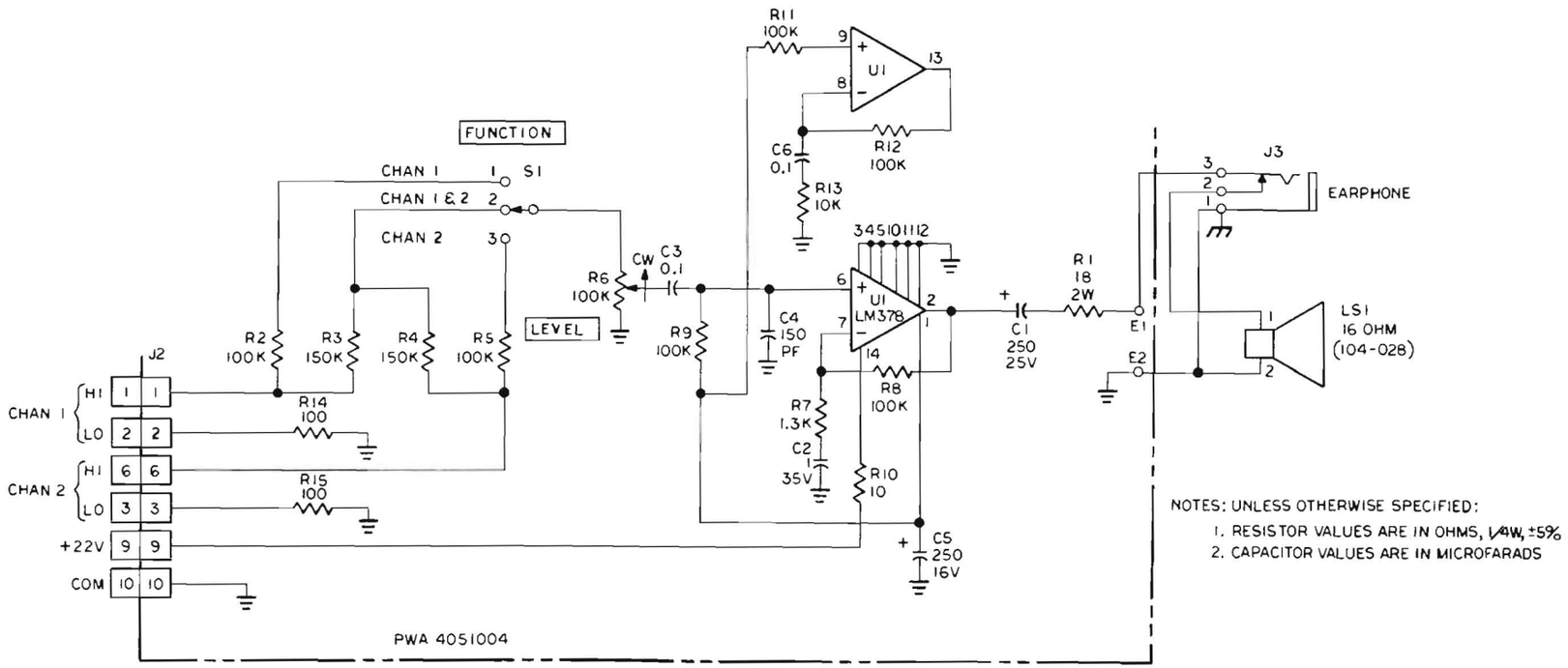
Assembly No. 4020462. Cue Amplifier

4051004-01 CUE AMPLIFIER PWA REV. –
NEXT HIGHER ASSEMBLY 4020462

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1				-01
2	4840516	SCHEMATIC CUE AMPLIFIER		(-)
3				
4				
5	041-669	RESISTOR, COMP., 18 OHMS, 5%, 2W	R1	1
6	066-849	RESISTOR, C.F., 100K OHMS, 5%, 1/4W	R2,5,8,9,11,12	6
7	066-974	RESISTOR, C.F., 150K OHMS, 5%, 1/4W	R3,4	2
8	066-830	RESISTOR, C.F., 10K OHMS, 5%, 1/4W	R13	1
9	066-810	RESISTOR, C.F., 10 OHMS, 5%, 1/4W	R10	1
10	066-812	RESISTOR, C.F., 100 OHMS, 5%, 1/4W	R14,15	2
11	066-841	RESISTOR, C.F., 1.3K OHMS, 5%, 1/4W	R7	1
12	075-240	RESISTOR, VARIABLE 100K OHMS, LOG TAPER	R6	1
13				
14				
15	031-399	CAPACITOR, ELECTROLYTIC, ALUM., 250ufd, 25V	C1	1
16	034-220	CAPACITOR, MICA, 150pF, 500V	C4	1
17	037-591	CAPACITOR, TANT., DIPPED, 1uf, 35V	C2	1
18	063-366	CAPACITOR, ELECT., ALUM., 250uf, 16V	C5	1
19	030-095	CAPACITOR, MONO., 0.1uf, 25V	C3,6	2
20				
21	122-490	SWITCH, ROTARY SP3T	S1	1
22	139-820	CONNECTOR, RECEPTACLE, 12 PINS	J2	1
23	589-763	CIRCUIT, INTEGRATED, (LM378)	U1	1
24				
25	600-296	SLEEVING, CLEAR , 24 AWG	R6	A/R
26	615-090	WIRE, SOLID, 24 AWG	R6	A/R



Assembly No. 4051004. Cue Amplifier PWA



NOTES: UNLESS OTHERWISE SPECIFIED:

1. RESISTOR VALUES ARE IN OHMS, 1/4W, ±5%
2. CAPACITOR VALUES ARE IN MICROFARADS

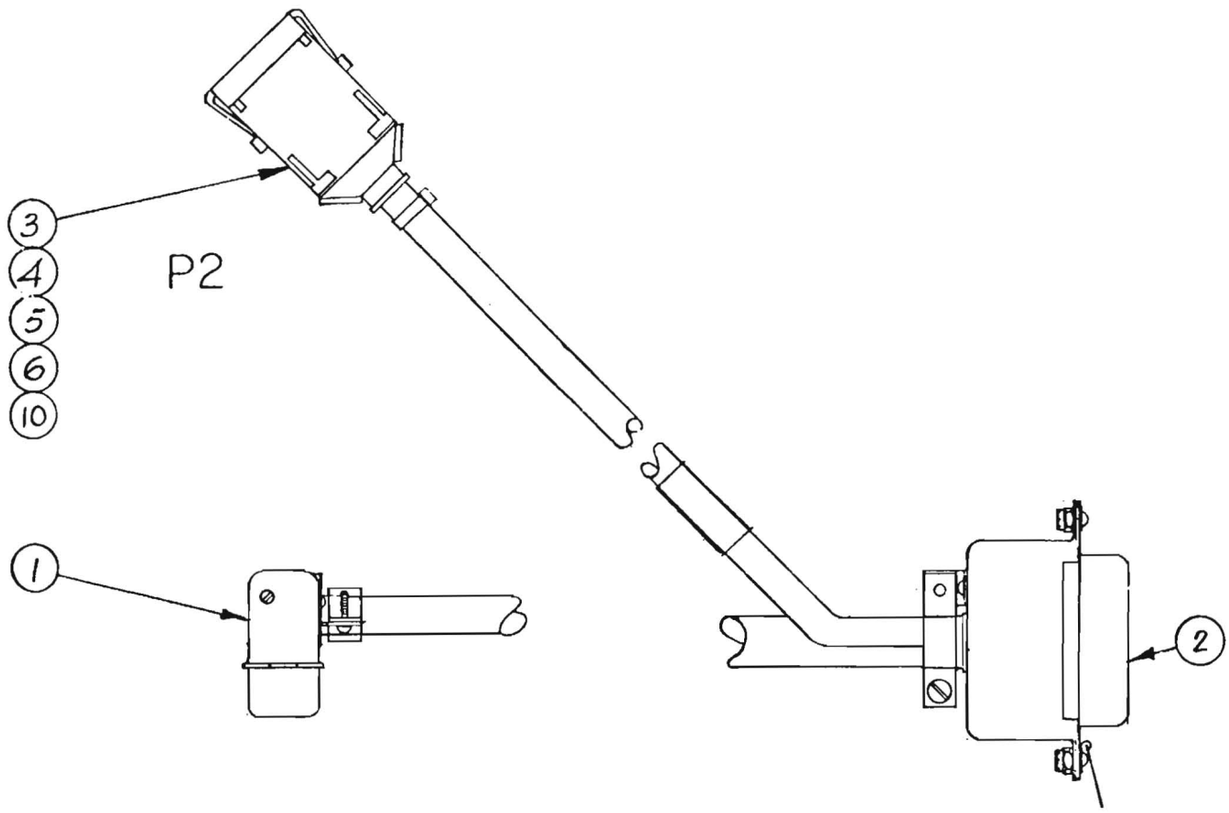
REF DES	
HIGHEST NO. USED	NO. NOT USED
C6 E2 J3 R13 S1 U1 LS1	J1

Schematic No. 4840516–.
Cue Amplifier PWA

AMPEX 4890407-02

4051008-01 CUE AMPLIFIER CABLE ASSEMBLY REV. A
NEXT HIGHER ASSEMBLY 4020462

ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	139-840		CONNECTOR, FEMALE, 24 CONTACTS	P1	1
2	140-311		CONNECTOR, RECEPTACLE, 24 CONTACTS	J1	1
3	167-024		CONNECTOR, RECEPTACLE, 12 POS.	P2	1
4	167-226		HOOD & STRAIN RELIEF	REF: P2	2
5	166-224		SOCKET, CONNECTOR, 26-24 AWG	REF: P2	4
6	166-225		SOCKET, CONNECTOR, 16-18 AWG	REF: P2	2
7					
8	616-282		CABLE, SHIELD & JACKET, 26 GA.		A/R
9					
10	302-388		STRAP, CABLE, 6.75 LG.		1
11					
12			WIRE, STRANDED, INSULATED, 24 GA.		A/R
13			SLEEVING, SHRINKABLE, BLACK		A/R
14			SLEEVING, FLEXIBLE, BLACK		A/R
15					



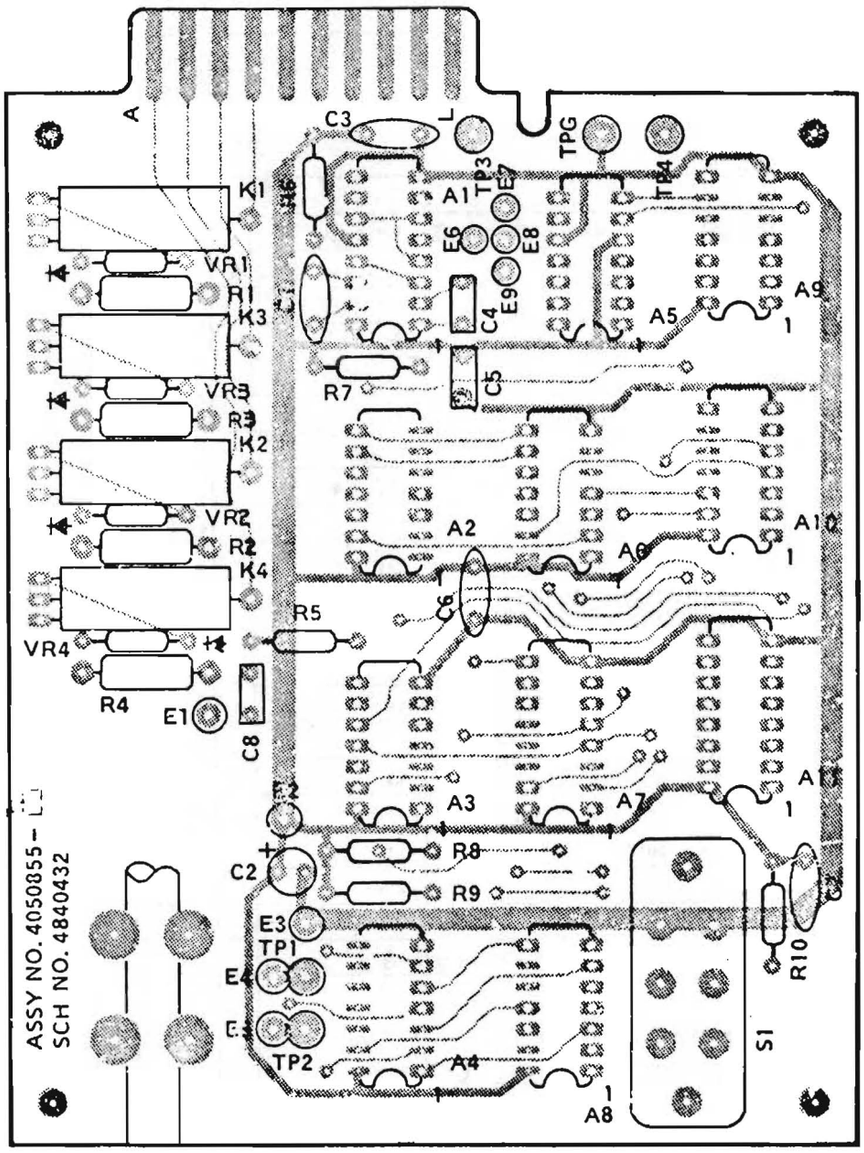
Assembly No. 4051008. Cue Amplifier Cable

4020433-01 NOISE REDUCTION SWITCHING INTERFACE KIT REV. B
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296, 4010297

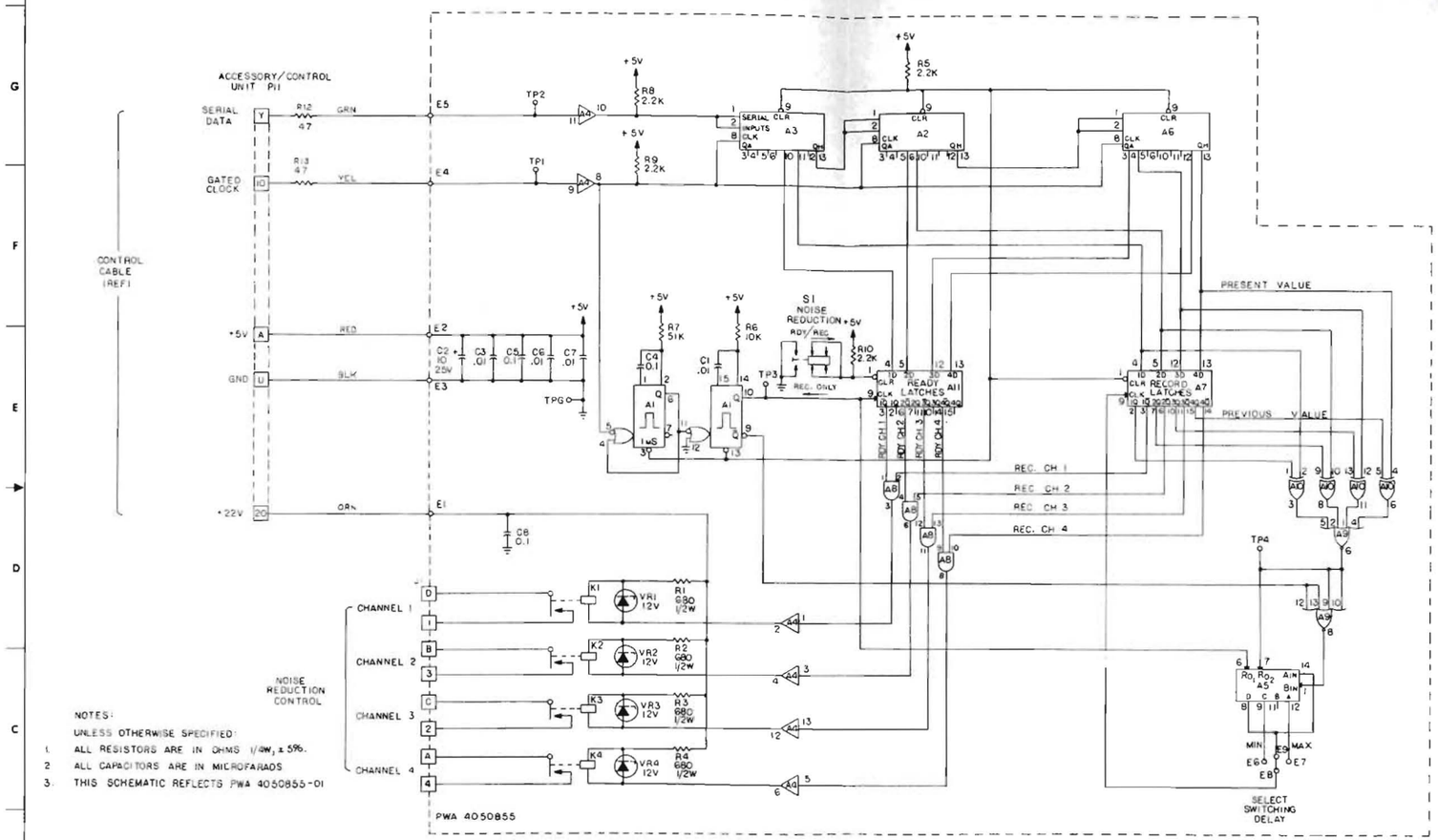
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4050855-01		PWA		1
2	4050865-01		CONNECTOR ASSY		1
3	4290963-01		COVER, N/R INTERFACE		1
4	4330360-01		PLATE, MNTG, N/R INTERFACE		1
5					
6	6000035-02		LABEL, INDENTIFICATION		1
7					
8	143-199		CONNECTOR, 10 PIN	P1	1
9	262-003		BUSHING, SLEEVE, .312 ID, BLK		-
10	302-379		TIE WRAP		2
11	470-014		SCREW, CAP, SOC HD, 4-40 X .75		5
12	492-008		NUT, HEX, 4-40		1
13	502-002		WASHER, LOCK, #4		5
14	262-002		BUSHING, SLEEVE, .220 ID, BLK		1
15					
16	4840432		SCHEMATIC		B

4050855-01 NOISE REDUCTION SWITCHING INTERFACE PWA REV. –
NEXT HIGHER ASSEMBLY 4020433

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01
1					
2					
3					
4					
5	4840432	SCHEMATIC		A	
6					
7	013-313	DIODE ZENER, 12V, 400MW (1N963B)		VR1,2,3,4	4
8	020-829	RELAY REED 12V		K1,2,3,4	4
9					
10	037-812	CAP, TANT DIPPED 10uF, 20%, 25V		C2	1
11	064-062	CAP, CER, MONO, .1uF - 20%, 100V		C4,5,8	3
12	064-116	CAP, CERAMIC .01uF + 80-20%, 50V		C1,3,6,7	4
13					
14	041-343	RESISTOR, C.C. 680 OHM, 5%, 1/2W		R1,2,3,4	4
15					
16	066-689	RESISTOR, C.F. 2.2K OHM, 5%. 1/4W		R5,8,9,10	4
17	066-830	RESISTOR, C.F. 10K OHM, 5%, 1/4W		R6	1
18	066-867	RESISTOR, C.F. 51K OHM, 5%, 1/4W		R7	1
19					
20	119-377	SWITCH, SLIDE		S1	1
21					
22	586-713	INTEGRATED CIRCUIT HEX BUFFER OC. HV 7407		A4	1
23	586-759	INTEGRATED CIRCUIT QUAD 2 INPUT AND 7408		A8	1
24	587-051	INTEGRATED CIRCUIT DUAL 4 INPUT NOR 7425		A9	1
25	586-705	INTEGRATED CIRCUIT QUAD EXCLUSIVE OR 7486		A10	1
26					
27	587-084	INTEGRATED CIRCUIT COUNTER, DIVIDE BY 12 (7492)		A5	1
28	586-450	INTEGRATED CIRCUIT 8-BIT SHIFT REGISTER (74164)		A2,3,6	3
29	586-925	INTEGRATED CIRCUIT QUAD D FLIP FLOP (74175)		A7,11	2
30	587-144	INTEGRATED CIRCUIT DUAL MONO MULT (9602)		A1	1



Assembly No. 4050855. Noise Reduction Switching Interface PWA



NOTES:
UNLESS OTHERWISE SPECIFIED:
1. ALL RESISTORS ARE IN OHMS 1/4W, ± 5%.
2. ALL CAPACITORS ARE IN MICROFARADS
3. THIS SCHEMATIC REFLECTS PWA 4050855-01

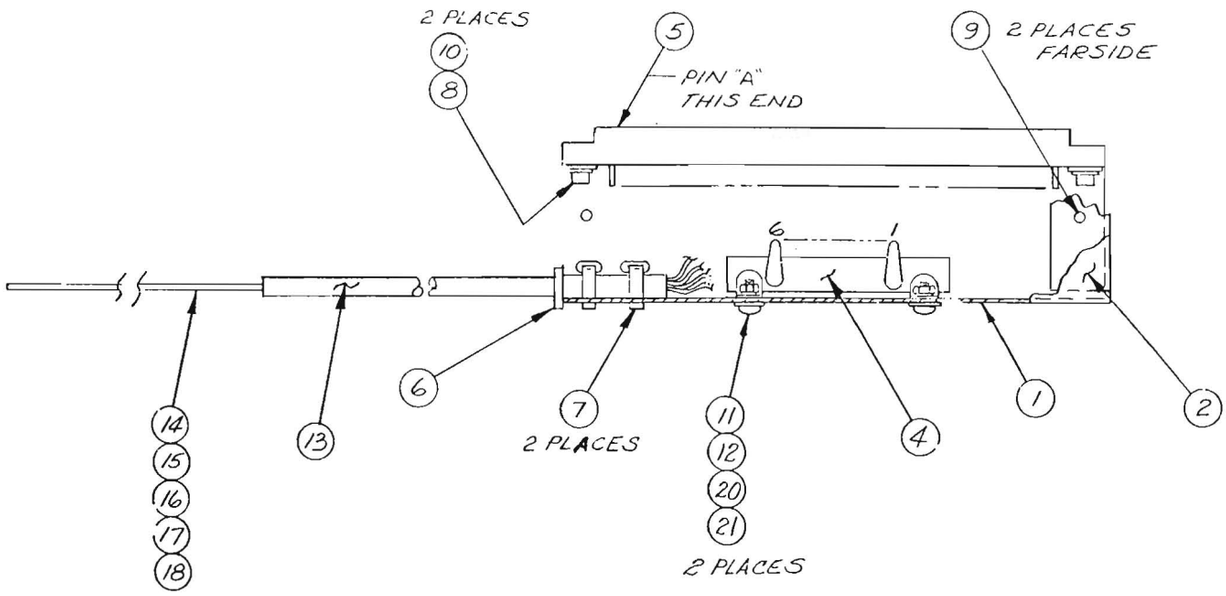
I. C. LIST				
REF DESIG.	A1	A2, 3, 6	A4	A5
AMPEX P/N	587-144	586-450	586-713	587-084
VENDOR P/N	9602	74164	7407	7492
+5V PIN	16	14	14	10
GND PIN	8	7	7	5
REF. DESIG.	A7, 11	A8	A9	A10
AMPEX P/N	586-925	586-759	587-051	586-705
VENDOR P/N	74175	7408	7425	7486
+5V PIN	16	14	14	14
GND PIN	8	7	7	7

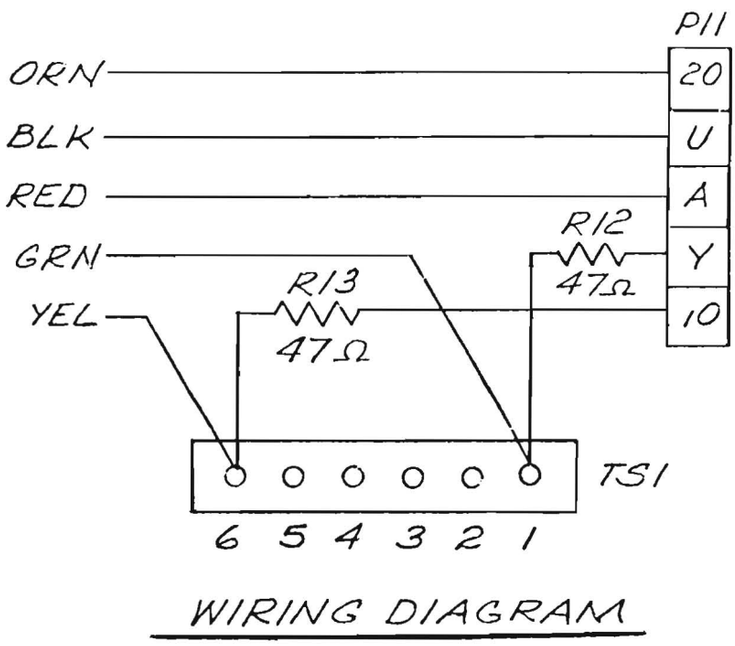
Schematic No. 4840432B.
Noise Reduction Switching Interface PWA

4050865-01 NOISE REDUCTION SWITCHING INTERFACE CONNECTOR ASSEMBLY
NEXT HIGHER ASSEMBLY 4020433

REV. B

ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4260574-01		BRACKET, ACCESSORY CONNECTOR		1
2	4290958-01		COVER, ACCESSORY CONNECTOR		1
3	066-938		RESISTOR, C.F., 47 OHM, 1/4W, 5%	R12,13	2
4	180-223		TERMINAL STRIP, 6 POST	TS1	1
5	143-804		CONNECTOR, 56 PIN	P11	1
6	262-003		BUSHING, SLEEVE, .312 ID, BLK		1
7	302-379		TIE WRAP		2
8	470-008		SCREW, CAP, SOC HD, 4-40 X .25		2
9	476-998		SCREW, TAPPING, 6-20 X .25, HEX WASHER HD		2
10	502-002		WASHER, LOCK, 4		2
11	501-155		WASHER, FLAT, 2		2
12	502-001		WASHER, LOCK, 2		2
13			SLEEVING, PVC, FLEX, BLACK		AR
14	611-256		WIRE, STRD, INS, #20, BLK.		AR
15	611-348		WIRE, STRD, INS, #24, YEL.		AR
16	611-428		WIRE, STRD, INS, #24, GRN.		AR
17	617-050		WIRE, STRD, INS, #20, RED		AR
18	617-051		WIRE, STRD, INS, #20, ORN.		AR
19	600-036		SLEEVING, TEFLON, .035 I.D. CLEAR	REF: R12,13	A/R
20	472-113		SCREW, MACH, PAN HD, 2-56 X .25		2
21	492-007		NUT, HEX, 2-56		2





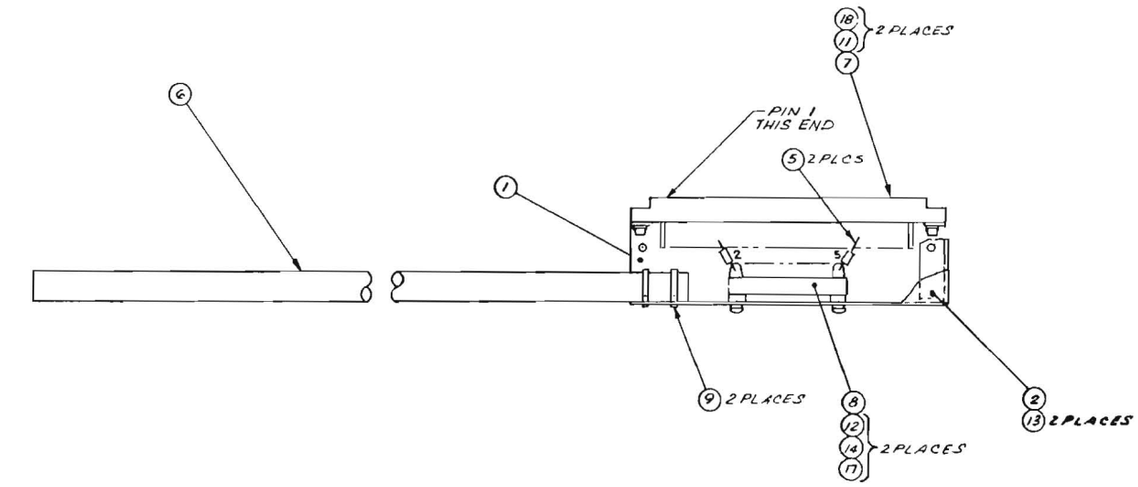
WIRING DIAGRAM

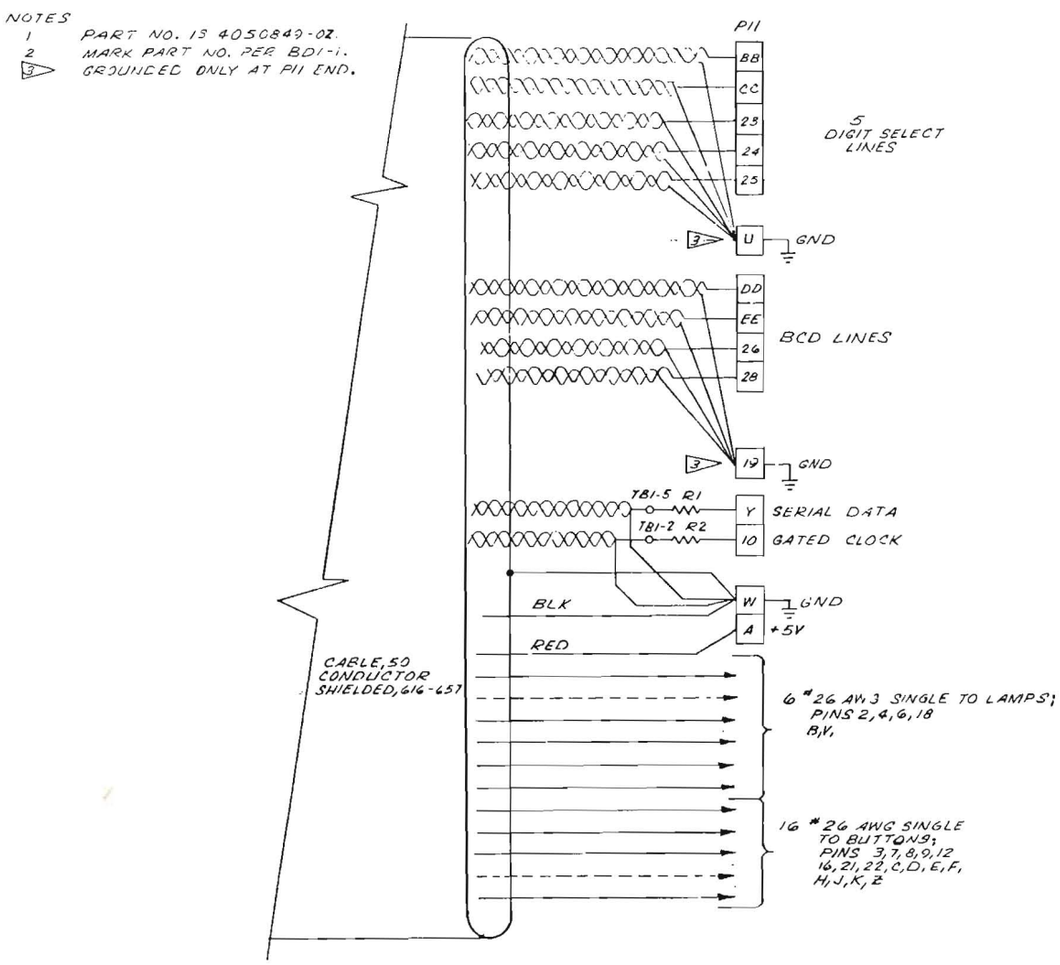
Assembly No. 4050865. Noise Reduction Switching Interface Connector

4010264-04 REMOTE CONTROL UNIT, 4 CHANNEL REV. F
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

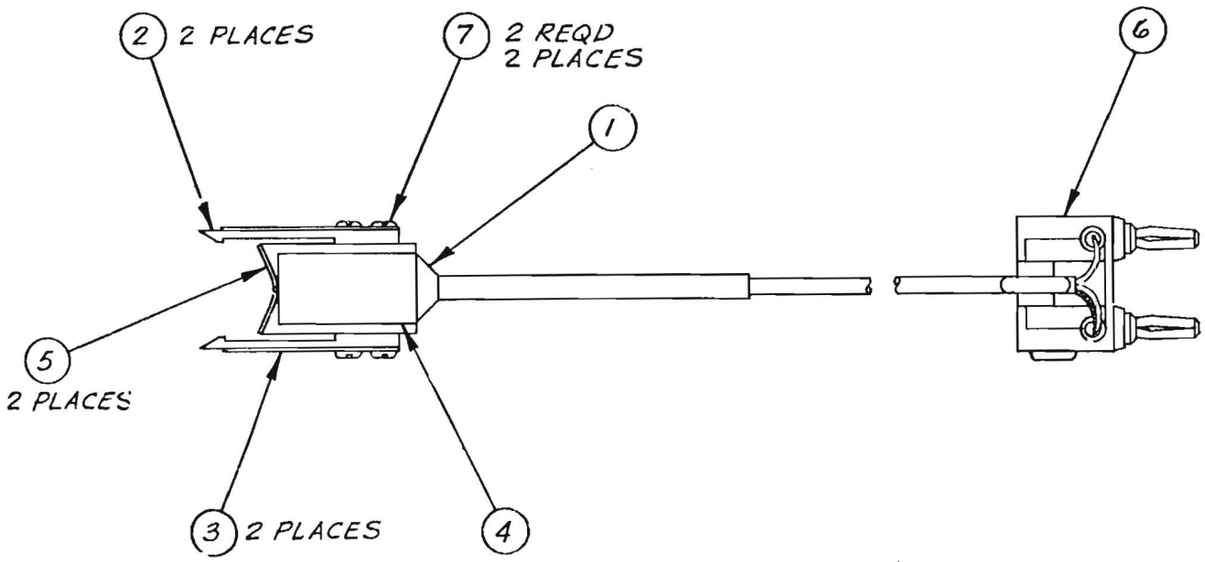
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04
1	4050849-02	HARNESS, REMOTE CONTROL		1	1	1	1
2	4050784-01	PWA #1, CONTROL UNIT, 4 CHANNEL		1	-	-	-
3	4050785-01	PWA #2, CONTROL UNIT, 4 CHANNEL		1	-	-	-
4	4100080-AA	PUSHBUTTON, LARGE, (GREY)		4	4	4	4
5	4100080-AB	PUSHBUTTON, LARGE, (RED)		1	1	1	1
6	4100081-01	PUSHBUTTON, SMALL, (GREY)		11	11	11	11
7	4150351-01	CASE, TOP		1	-	-	-
8	4150352-01	CASE, BOTTOM		1	-	-	-
9	4110299-01	OVERLAY		1	1	1	1
10	~~4150348-01~~	~~CLAMP, CABLE~~		~~1~~			-
11	4050784-02	PWA #1, CONTROL UNIT, 4 CHANNEL			1	1	1
12	4050785-03	PWA #2, CONTROL UNIT, 4 CHANNEL			1	1	-
13	280-327	SPACER, THREADED, 4-40 .500 LG		6	6	6	6
14	471-061	SCREW, MACHINE, PAN HEAD .312 LG		6	4	4	4
15	~~473-324~~	~~SCREW, MACHINE, SCH, .250 LG~~		~~2~~			-
16	501-195	WASHER, #4, .209 O.D., .032 THK		8	8	8	8
17	4150351-02	CASE, TOP				-	-
18	4150352-02	CASE, BOTTOM			1	1	1
19	616-572	CABLE, RIBBON		A/R	A/R	A/R	A/R
20	4050785-04	PWA, NO. 2 CONTROL UNIT, 4 CHANNEL		-	-	-	1
21	302-379	STRAP, CABLE, TY RAP			1	1	1
22	4330357-01	LOCKING PLATE			4	4	4
23							
24	471-575	SCREW, BINDER HD, #4-40 X 5/16			2	2	2
25	250-180	BUMPER, RUBBER, SELF ADHESIVE			4	4	4
26	473-929	SCREW, HEX HD 4-40 X .437 LG				6	6
27	225-432	TAPE, DOUBLE SIDED			A/R	A/R	A/R
28	6000035-01	LABEL, IDENTIFICATION			1	1	1
29	4150351-03	CASE, TOP				1	1

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1	4260574-01		BRACKET, ACCESSORY CONNECTOR		1	1
2	4290958-01		COVER, ACCESSORY CONNECTOR		1	1
3						
4						
5	066-938		RESISTOR, C.F. 47Ω, 1/4W, 5%	R1,2	2	2
6	616-657		CABLE, 50 CONDUCTOR, SHIELDED, 300 IN.		1	1
7	143-804		CONNECTOR PCB, 56 PIN		1	1
8	180-223		TERMINAL STRIP, 6 CONTACT	TB-1	1	1
9	302-379		TIE WRAP		2	2
10						
11	470-006		SCREW, CAP, SKT HEAD 4-40 x .250		2	2
12	472-451		SCREW PAN HEAD 2-56 x .188 LG		2	2
13	476-998		SCREW, SHEET METAL 6-20 x .125		2	2
14	492-007		NUT # 2-56		2	2
15						
16	501-084		WASHER, #2, PLAIN		2	2
17	502-001		LOCK-WASHER #2		2	2
18	502-002		LOCK WASHER #4		2	2
19	600-036		TEFLON TUBING			A/R





Assembly No. 4050849. Remote Control Unit Harness



4	7	471-061		SCREW, MACH, PAN HD, 4-40 x .31 LG
1	6	140-095		CONNECTOR, MALE, 2 PIN
A/R	5	269-215		PAD, CORK COMP, ADHESIVE BACKED
1	4	6000040-02		LABEL, FOIL, ADHESIVE BACKED
2	3	4270142-01		SPRING, FLAT
2	2	4270141-01		CLIP LATCH
1	1	4050872-02		FLUX LOOP SUB ASSEMBLY
QTY	ITEM NO.	PART NUMBER		DESCRIPTION
		PARTS LIST		

Assembly No. 4020423. Flux Loop

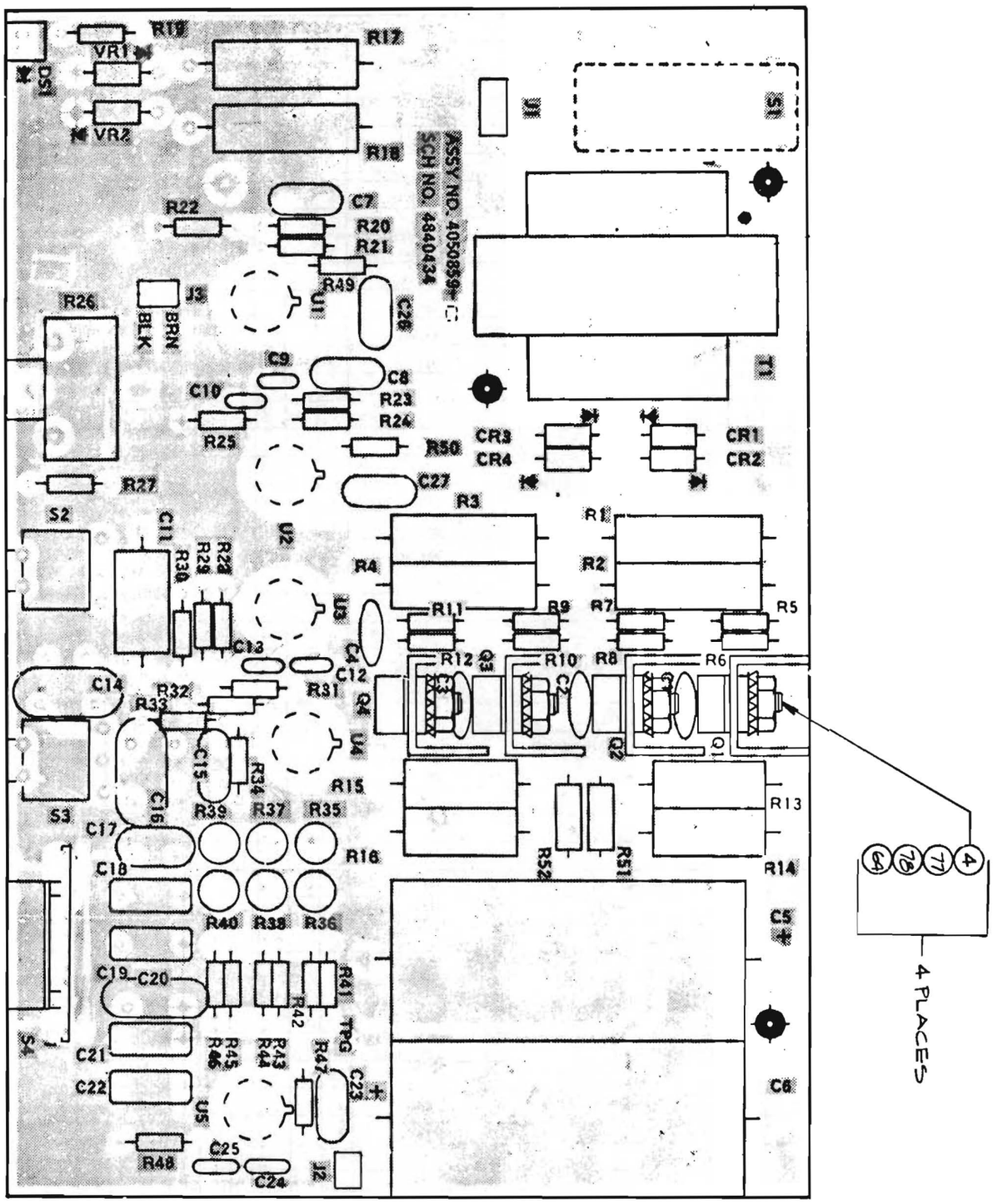
4020424-01 FLUX LOOP EQUALIZING AMPLIFIER ASSEMBLY REV. B
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1				
2				
3				
4				
5	4030416-01	CHASSIS ASSY		1
6	4110147-23	NAME PLATE		1
7	4290962-01	COVER		1
8	6000006-10	KNOB, SKIRTED 5/8" MED. DK. GY		2
9				
10				
11				
12				
13	070-996	FUSE, SLOW BLOW 0.1A, 125V	F1	1
14	084-032	CORD, POWER, 6 FT		1
15	085-001	HOLDER, FUSE		1
16	120-746	SWITCH, DPDT	S5	1
17	167-369	CONNECTOR PART, CONTACT,(6 REQUIRED)		AR
18	167-404	CONNECTOR PART, BODY, 2 POSITION	P2,3	2
19	167-442	CONNECTOR PART, BODY, 3 POSITION	P1	1
20				
21	172-009	SOLDER LUG, #10		4
22	172-004	SOLDER LUG, #4		1
23	187-003	POST, BINDING, BLACK		1
24	187-004	POST, BINDING, RED		3
25	250-192	FOOT, .300 H.X .812 W.		4
26	265-075	BUSHING, STRAIN RELIEF		1
27				
28	302-335	TIE-STRAP ,4"		2
29	473-324	SCREW, SEM, 4-40 X .250		4
30	476-998	SCREW, HEX HD, SELF TAPPING , #6 X .250		4
31				
32	492-457	NUT, 3/8-32		1
33	501-008	WASHER, FLAT #4		2
34				
35		WIRE, PVC, 22 AWG		AR
36		SLEEVING, SHRINK, BLK	REF:S5,F1	AR

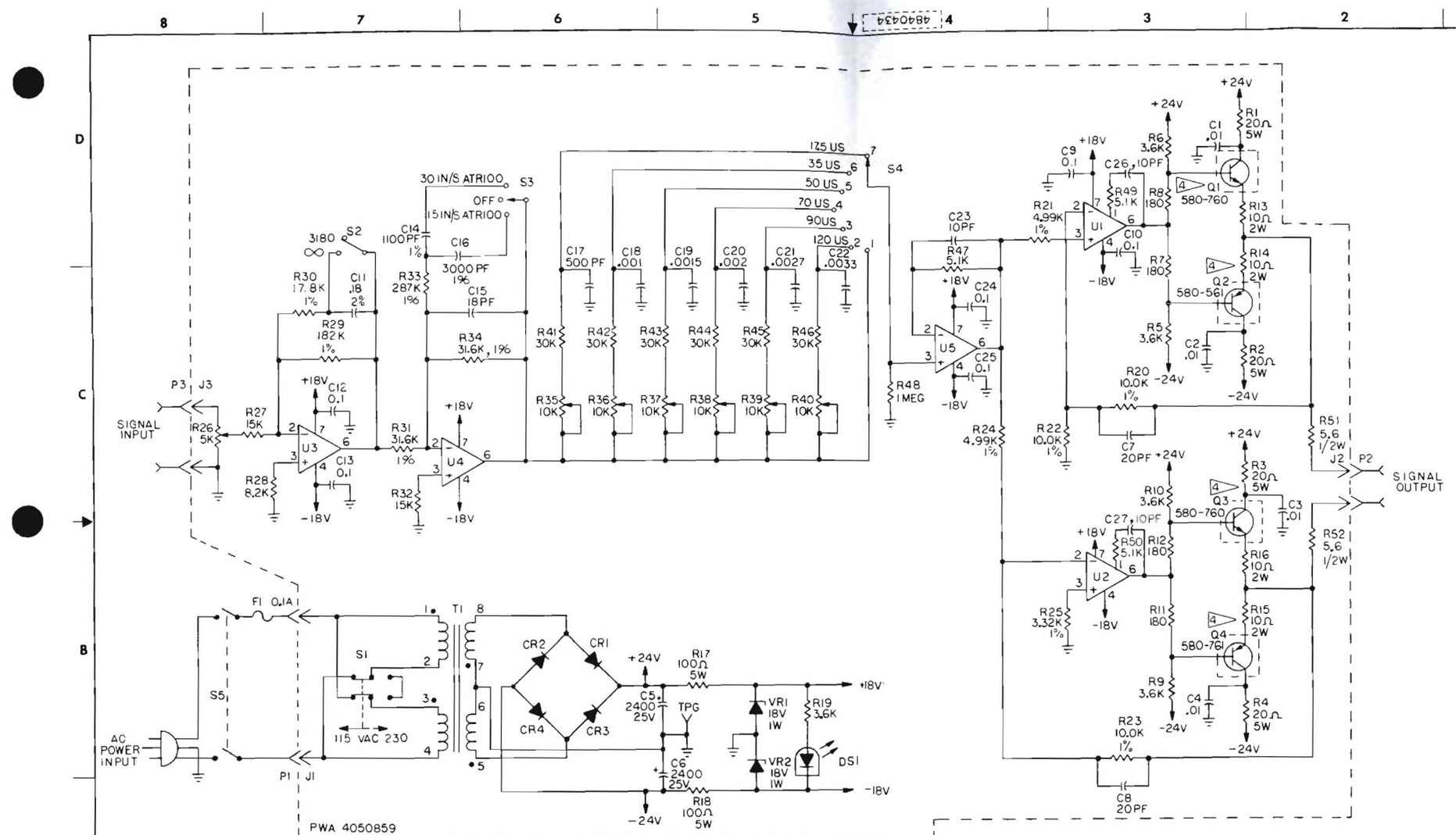
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1					
2	4840434	SCHEMATIC		(—)	
3					
4	4290857-01	HEAT SINK		4	
5	103307-01	STAND-OFF		R1-4,13-18	20
6					
7	013-630	RECTIFIER, 1A 200V	(1N4003)	CR1-4	4
8	581-292	DIODE,ZENER, 18V. 5% 1W	(1N4746A)	VR1.2	2
9					
10	580-760	TRANSISTOR,PWR,NPN	(D44C9)	Q1,3	2
11	580-761	TRANSISTOR,PWR.NPN	(D45C9)	Q2,4	2
12	587-478	I.C. OP AMP	(LM318H)	U1-5	5
13					
14					
15	064-062	CAPACITOR, CER MONO, .1uF, 100V		C9,10,12,13,24,25	6
16	064-116	CAPACITOR, CER, .01uF, 50V		C1-4	4
17					
18	034-215	CAPACITOR, MICA, 10pF, 5%, 500V		C23,26,27	3
19	034-206	CAPACITOR, MICA, 18pF, 5%. 500V		C15	1
20	034-944	CAPACITOR, MICA, 20pF, 5%, 500V		C7,8	2
21	056-292	CAPACITOR, MICA, 500pF, 5%, 500V		C17	1
22	055-863	CAPACITOR, MYLAR, .001uF, 5%, 50V		C18	1
23	069-134	CAPACITOR, MYLAR .0015uF, 5%, 50V		C19	1
24	034-161	CAPACITOR, MICA, 2000pF, 5%, 500V		C20	1
25	069-133	CAPACITOR, MYLAR, .0027uF, 5%, 50V		C21	1
26	055-865	CAPACITOR, MYLAR, .0033uF, 5%, 50V		C22	1
27					
28	069-132	CAPACITOR,POLYCARBONATE.18uF, 2%, 50V		C11	1
29	056-020	CAPACITOR, MICA, 1100pF, 1%, 500V		C14	1
30	034-243	CAPACITOR, MICA, 3000pF, 1%, 500V		C16	1
31					
32	031-870	CAPACITOR,ALUM. 2400uF-10+75% 25V		C5,6	2
33					
34					
35					
36					
37					

AMPEX \| Ampex Corporation Redwood City, California	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4050859 SHEET 2	REV A

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
38	041-691	RESISTOR CF 5.6 OHM, 5%, 1/2W	R51,52	2
39	041-667	RESISTOR, CC, 10Ω, 5%, 2W	R13-16	4
40	043-325	W.W.20Ω, 5%, 5W	R1-4	4
41	043-273	W.W.100Ω,5%, 5W	R17,18	2
42				
43				
44	076-004	C.F,180Ω,5%, 1/4W	R7,8,11,12	4
45	066-863	3.6K	R5,6,9,10,19	5
46	066-842	5.1K	R47,49,50	3
47	066-669	8.2K	R28	1
48	066-856	15K	R27,32	2
49	066-846	30K	R41-46	6
50	066-673	C.F. 1M 5%, 1/4W	R48	1
51				
52				
53	062-955	M.F. 3.32K, 1%, 1/4W	R25	1
54	062-968	4.99K	R21,24	2
55	062-983	10.0K	R20,22,23	3
56	066-451	17.8K	R30	1
57	062-797	31.6K	R31,34	2
58	065-803	182K	R29	1
59	076-176	RESISTOR, M.F. 287K 1% 1/4W	R33	1
60				
61	058-611	POTENTIOMETER, 10K, 20%, 1/2W	R35-40	6
62				
63	075-126	POTENTIOMETER, 5K, 1/2 W	R26	1
64	087-388	HEAT SINK COMPOUND (DC 340)		AR
65	4620089-01	SWITCH,ROTARY, PC MOUNT	S4	1
66				
67	560-462	TRANSFORMER,	T1	1
68				
69	122-423	SWITCH SPDT (ON-NONE-ON)	S2	1
70	119-476	SWITCH,DPDT, SLIDE	S1	1
71	119-469	SWITCH,SPDT (ON-OFF-ON)	S3	1
72				
73	581-522	LED,RIGHT ANGLE PC MOUNT	DS1	1
74				
75	187-254	TERMINALS, STRIP, POST	REF J1-3 (6 REQ'D)	A/R
76				
77	470-017	SCREW, SOCKET HEAD, 6-32 X 5/16		4
78	496-002	NUT, WITH ASSEMBLED WASHER, #6-32		4



Assembly No. 4050859. Flux Loop Equalizing Amplifier PWA



NOTES: UNLESS OTHERWISE SPECIFIED.

1. ALL RESISTORS ARE IN OHMS, 5%, 1/4W.
2. ALL CAPACITORS ARE IN MICROFARADS, 50V MIN.
3. ALL DIODES ARE 013-630.

4 > HEATSINKS REQ. ON THESE TRANSISTORS.

INTEGRATED CIRCUIT LIST	
REFERENCE DESIGNATIONS	U1-5
AMPEX PART NO.	587-478
VENDOR PART NO.	LM318H

REFERENCE DESIGNATIONS	
LAST USED	NOT USED
C27	
CR4	
DS1	
J3	
Q4	
R52	
S5	
T1	
U5	
VR2	

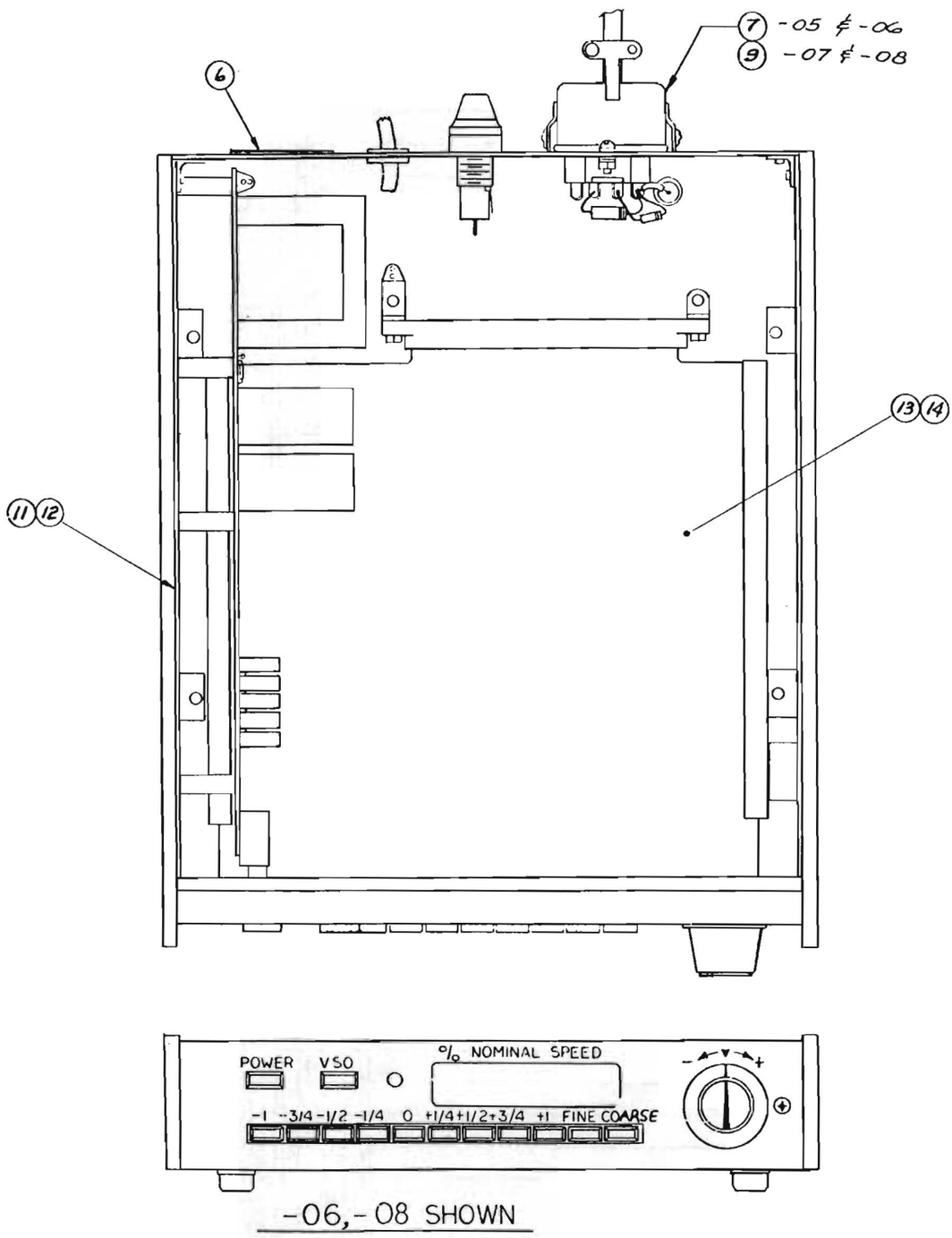
FIELD SERVICE COMPONENT SUBSTITUTION LIST	
AMPEX PART NO.	NEAREST COML EQUIVALENT
580-760	D44C9
580-761	D45C9
013-630	IN4003
581-292	IN4746A

Schematic No. 4840434-.
Flux Loop Equalizing Amplifier PWA

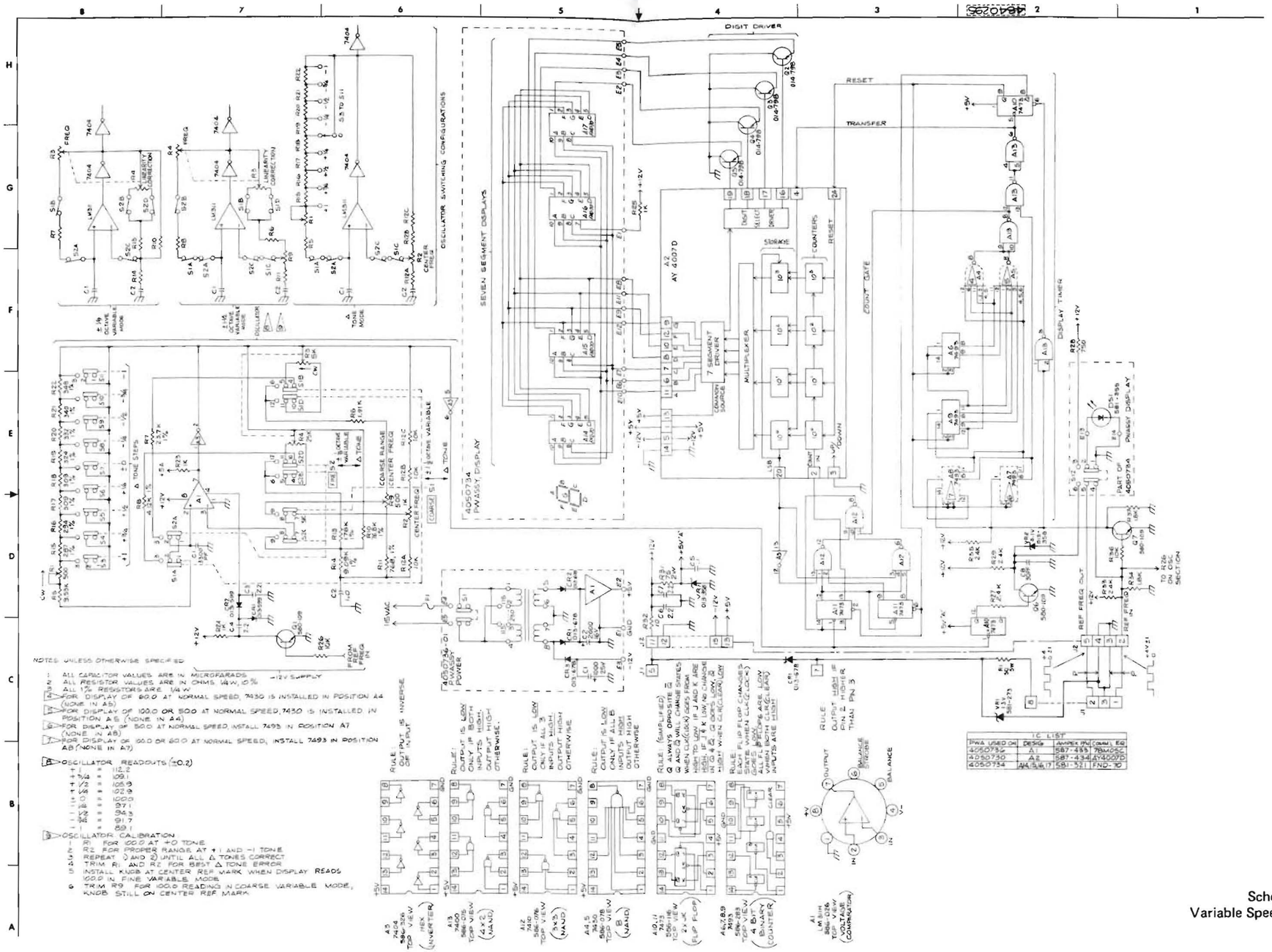
4010217-07 VARIABLE SPEED OSCILLATOR ASSEMBLY REV. D
(w/o DISPLAY)

4010217-08 VARIABLE SPEED OSCILLATOR ASSEMBLY (w/DISPLAY)
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER		DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01	02	03	04	05	06	07	08
1	4030348-01		HOUSING ASSY		1	-	1	-	-	-	-	-
2	4050735-01		FRONT PANEL ELECTRONICS ASSY		1	-	1	-	-	-	-	-
3	4050738-01		CABLE ASSY, INTERCONNECT TO TAPE TRANSPORT		1	1	-	-	-	-	-	-
4	4030348-02		HOUSING ASSEMBLY		-	1	-	1	-	-	-	-
5	4050735-02		FRONT PANEL ELECTRONICS		-	1	-	1	-	-	-	-
6	6000035-02		LABEL		1	1	1	1	1	1	1	1
7	4050738-02		CABLE ASSY, INTERCONNECT TO TAPE TRANSPORT				1	1	1	1	-	-
8	4890351-01		INSTRUCTION MANUAL		1	1	1	1	1	1	1	1
9	4050852-01		CABLE ASSY, INTERCONNECT TO ATR100 TRANSPORT						-	-	1	1
10	4830335		PERFORMANCE SPEC		REF	REF	REF	REF	REF	REF	REF	REF
11	4030348-05		HOUSING ASSY						1	-	1	-
12	4030348-06		HOUSING ASSY						-	1	-	1
13	4050735-03		FRONT PANEL ELECTRONICS ASSY						1	-	1	-
14	4050735-04		FRONT PANEL ELECTRONICS ASSY						-	1	-	1
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												
34	4840295		SCHEMATIC			REF	→	REF		C		C
35	4840324		SCHEMATIC		REF		REF	→	C		C	

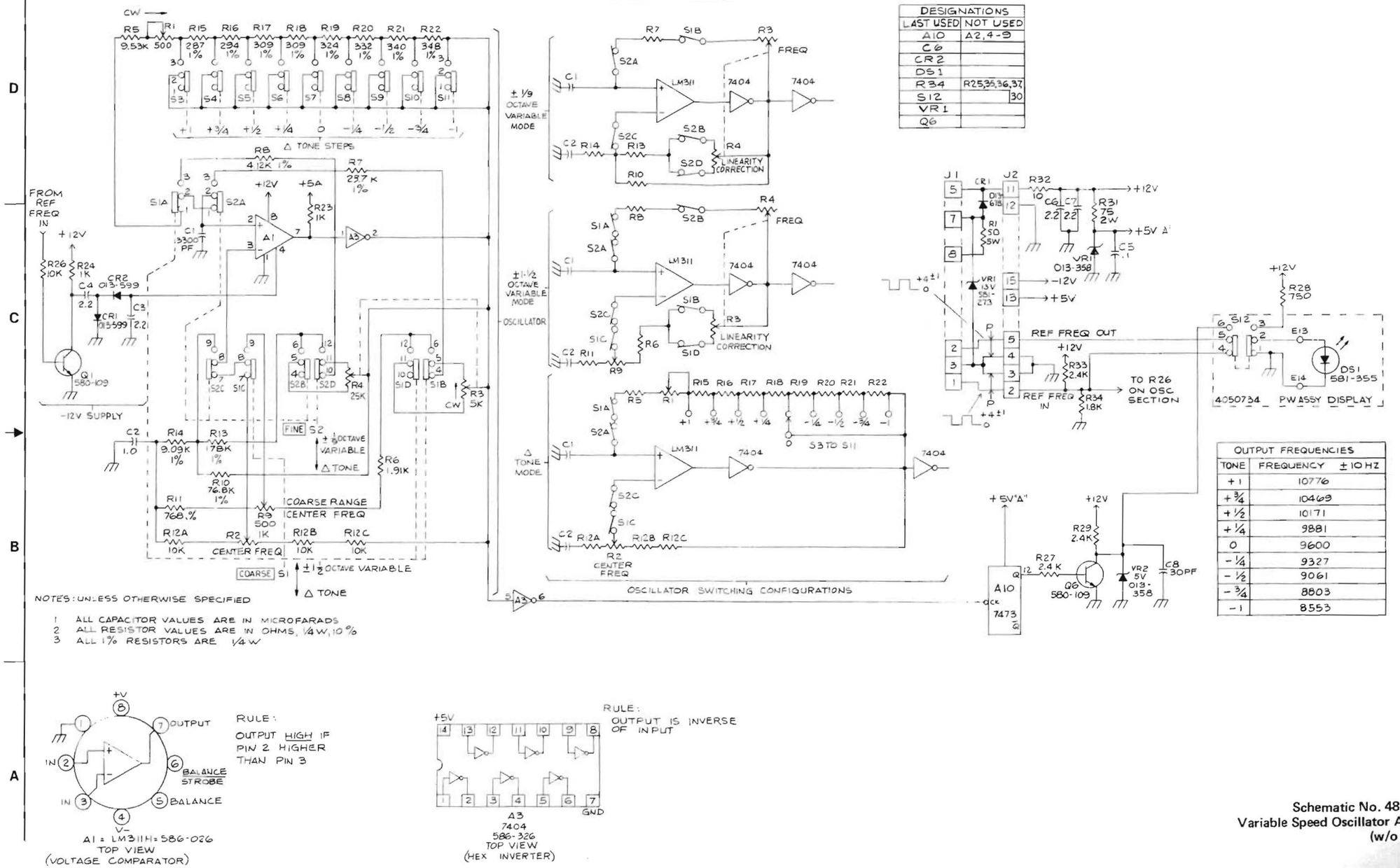


Assembly No. 4010217. Variable Speed Oscillator



PWA USED ON	DESIG	AMPEX PN	CASE	EQ
4050736	A1	587-455	78M05C	
4050730	A2	587-434	AY-4007D	
4050734	A4,5,6,7	581-521	FND-70	

Schematic No. 4840295C.
Variable Speed Oscillator Assembly
(w/Display)



DESIGNATIONS	
LAST USED	NOT USED
A10	A2,4-9
C6	
CR2	
DS1	
R34	R25,35,36,37
S12	30
VR1	
Q6	

OUTPUT FREQUENCIES	
TONE	FREQUENCY ±10 HZ
+1	10776
+¾	10409
+½	10171
+¼	9881
0	9600
−¼	9327
−½	9061
−¾	8803
−1	8553

A1 = LM311H = 586-026
TOP VIEW
(VOLTAGE COMPARATOR)

RULE:
OUTPUT HIGH IF PIN 2 HIGHER THAN PIN 3

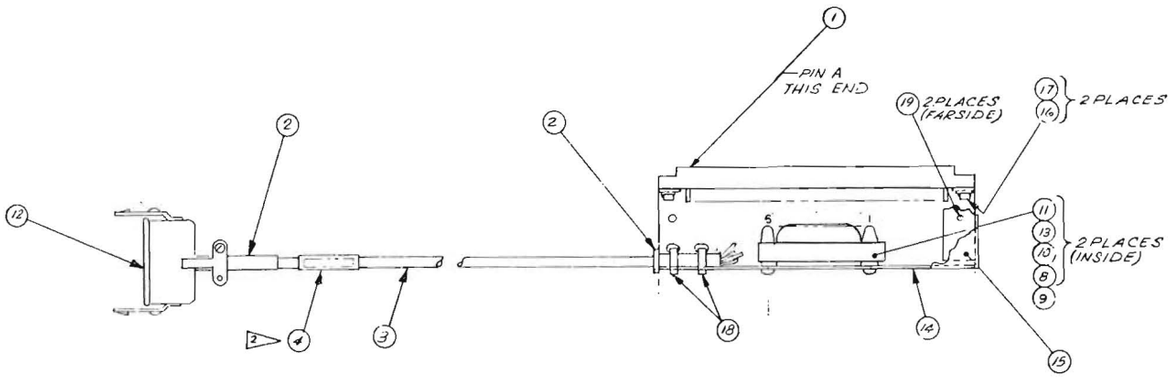
A3
7404
586-326
TOP VIEW
(HEX INVERTER)

RULE:
OUTPUT IS INVERSE OF INPUT

Schematic No. 4840324C.
Variable Speed Oscillator Assembly
(w/o Display)

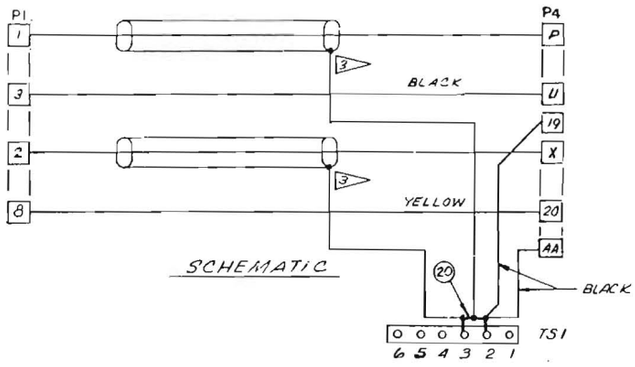
6-219/6-220

AMPEX 4890407-02



NOTES

1. PART NO. IS 4050852-01
2. MARK PART PER BOI-1.
3. SHIELDS CONNECTED AT ONE END ONLY.



A/R	20	615-012	WIRE, BARE, 20 AWG
2	19	476-098	SCREW, TAPPING 6-20 x .250 LG
2	18	332-379	STRAP, CABLE
2	17	502-002	WASHER, LOCK, 4-40
2	16	470-008	SCREW, CAP SOCKET, 4-40 x .25 LG
1	15	4290958-01	COVER, ACCESSORY CONN
1	14	4260574-01	BRACKET, ACCESSORY CONN
2	13	501-094	WASH, FLAT, 2-56
1	12	144-023	CONN., SIG CIR, PLUG, RECT, & SOC (P1)
2	11	502-001	WASHER, LOCK, 2-56
2	10	492-007	NUT, HEX, 2-56
1	9	180-223	TERMINAL STRIP, 6 POST (TS1)
2	8	472-451	SCREW, MACH., PAN HD., 2-56 x .188 LG
A/R	7	611-256	WIRE, INS, STRD. #20, BLACK
A/R	6	611-052	WIRE, INS, STRD. #20, YELLOW
A/R	5	616-329	CABLE, SHLD & JKTD, SINGLE, 1 COND, #25 AWG
A/R	4	600-256	SLEEVING, PVC, SHRINK, EXP. I.D. .375 BLK
A/R	3	600-043	SLEEVING, PVC, FLEX NOM .330 ID BLACK
2	2	262-003	BUSHING, SLEEVE, FLG .312 ID x .427 O.D.
1	1	143-804	CONN., 56 PIN, FEMALE (P4)
-01	ITEM NO.	PART NUMBER	DESCRIPTION

PARTS LIST

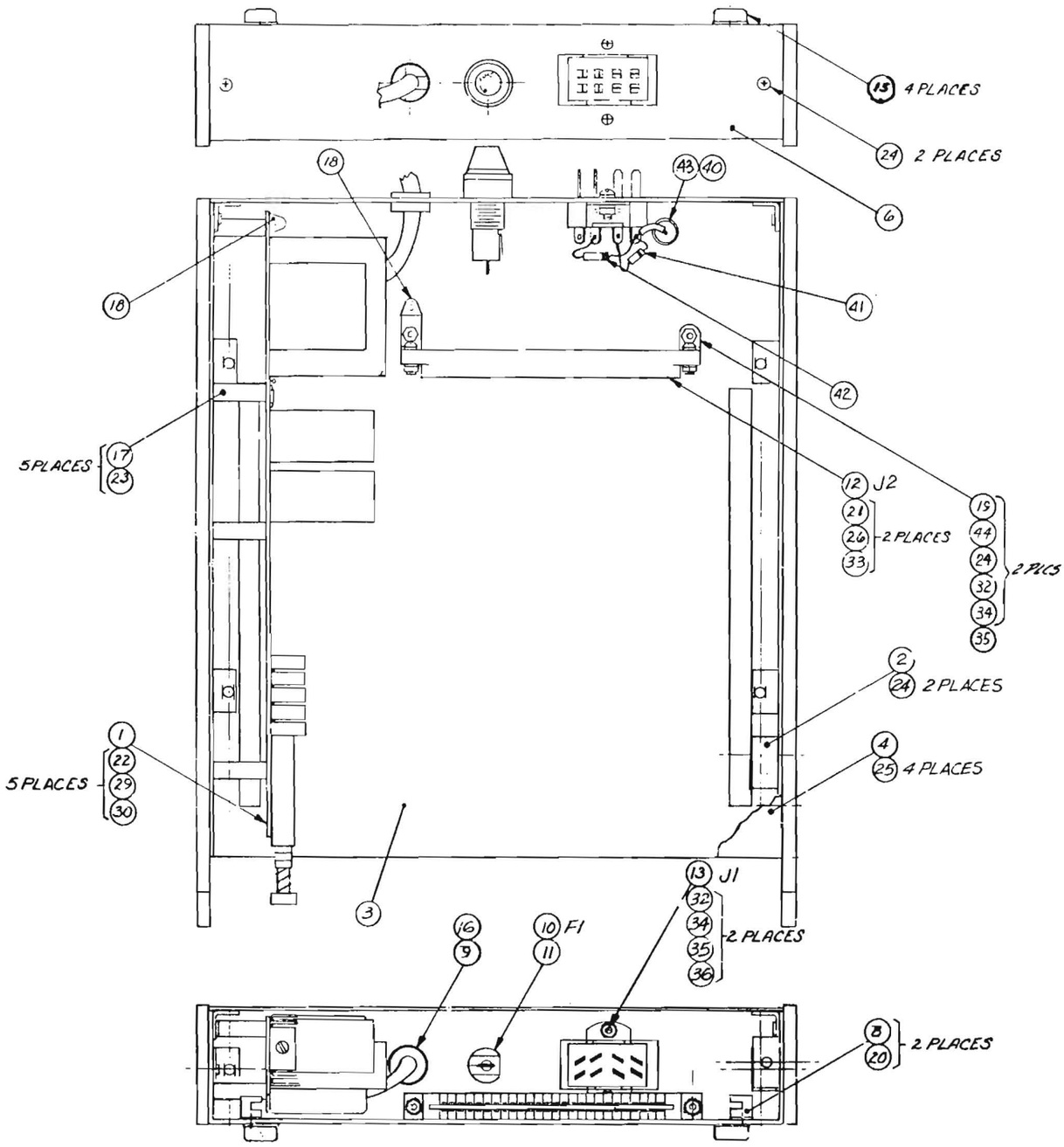
Assembly No. 4050852. Interconnect to ATR-100 Cable Assembly

4030348-05 HOUSING ASSEMBLY (w/o POWER SUPPLY) REV. F
4030348-06 HOUSING ASSEMBLY (w/POWER SUPPLY)
NEXT HIGHER ASSEMBLY 4010217

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER					
					01	02	03	04	05	06
1	4050736-02		P.W.ASSY, POWER		-	1	-	1	-	1
2	4220275-01		BLOCK MTG. FRONT PANEL		1	1	1	1	1	1
3	4290743-02		CHASSIS		1	1	1	1	1	1
4	4290752-01		COVER		1	1	1	1	1	1
5	4290753-01		REAR PANEL		1	-	1	-	1	-
6	4290753-02		REAR PANEL		-	1	-	1	-	1
7	4290754-01		SIDE PANEL		2	2	2	2	2	2
8	4230274-02		GUIDE, PC CARD		2	2	2	2	2	2
9	084-038		POWER CORD 3WIRE		-	1	-	1	-	1
10	070-996		FUSE, SLO BLO, .100 A	F1	-	1	-	1	-	1
11	085-005		FUSE HOLDER	XF1	-	1	-	1	-	1
12	139-294		CONNECTOR, RECP,PC,22 DUAL CONT	J2	1	1	1	1	1	1
13	147-006		CONNECTOR, RECP,RECT, 8 PINS	J1	1	1	1	1	1	1
14	~~173-003~~		~~TERMINAL STUD, TURRET, INT THD, 6-32~~							
15	250-114		BUMPER, PAD PLASTIC		4	4	4	4	4	4
16	264-014		BUSHING, STRAIN RELIEF		-	1	-	1	-	1
17	280-040		SPACER, THD, PLAIN 6-32 X .250 AF, .750 LG		-	5	-	5	-	5
18	172-003		TERMINAL LUG, SOLDER #6		1	2	1	2	1	2
19	230-187		ANGLE BRACKET 90°		2	2	2	2	2	2
20	225-353		TAPE, ADHESIVE, DOUBLE SIDE, 1/2" WIDE		A/R	A/R	A/R	A/R	A/R	A/R
21	471-064		SCREW, PAN HD, XREC, 4-40 X .500 LG		2	2	2	2	2	2
22	471-067		SCREW, PAN HD, 6-32 X .250 LG		-	5	-	5	-	5
23	471-334		SCREW, FLT HD, XREC 6-32 X .250 LG		-	5	-	5	-	5
24	471-336		SCREW, FLAT HD, XREC 6-32 X .375 LG		6	6	6	6	6	6
25	473-045		SCREW, FLAT HD, XREC 6-32 X .375 LG, BLK		4	4	4	4	4	4
26	496-004		NUT, HEX CAPTIVE WASHER 4-40		2	2	2	2	2	2
27	496-005		NUT, HEX, CAPTIVE WASHER 6-32		4	4	4	4	4	4
28	471-338		SCREW, XREC FLAT HD, 6-32 X .50 LG		4	4	4	4	4	4
29	501-009		WASHER, PLAIN #6		9	9	9	9	9	9
30	502-025		WASHER, LOCK, INT TOOTH, #6		5	5	5	5	5	5
31			WIRE, #24		A/R	A/R	A/R	A/R	A/R	A/R
32	492-034		NUT, PLAIN, HEX SMALL 6-32		4	4	4	4	4	4
33	501-008		WASHER, PLAIN #4		2	2	2	2	2	2
34	501-188		WASHER, PLAIN, SMALL #6		4	4	4	4	4	4
35	502-003		WASHER, SPLIT LOCK #6		4	4	4	4	4	4
36	471-068		SCREW, XREC, PAN HD 6-32 X 5/16 LG		2	2	2	2	2	2
37	600-131		TUBING, SHRINKABLE		A/R	A/R	A/R	A/R	A/R	A/R

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 4030348 SHEET 2	REV F

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
38	043-562	RESISTOR, W.W. 75 OHMS, 3%, 5W	R1	-	-	1	1	-	-
39	013-886	DIODE, ZENER, 12V, 5%, 1W (1N4742A)	VR1	-	-	1	1	-	-
40	600-196	SLEEVING, TEFLON		-	-	A/R	A/R	A/R	A/R
41	013-678	DIODE, SILICON (1N4385)	CR1					1	1
42	581-273	DIODE, ZENER, 13V, 5% 5W	VR1					1	1
43	059-131	RESISTOR, W.W. 50 OHMS, 1%, 5W	R1					1	1
44	502-014	WASHER, LOCK EXTERNAL TOOTH						2	2



-06 SHOWN

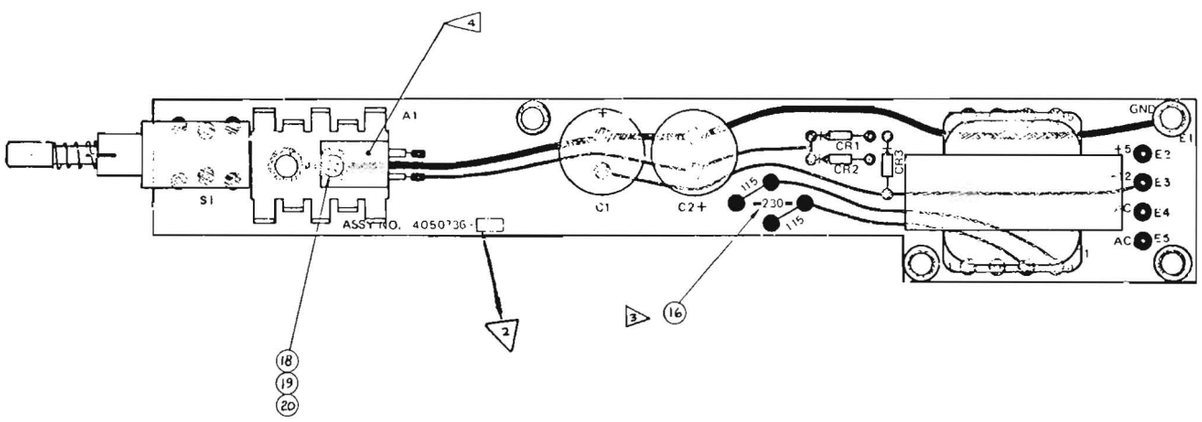
Assembly No. 4030348. Housing

4050736-02 POWER PWA REV. E
NEXT HIGHER ASSEMBLY 4030348

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 02
1					
2					
3	4840295	SCHEMATIC		C	
4					
5	013-678	DIODE (1N4385)		CR1,2,3	3
6					
7	063-266	CAPACITOR, ALUM, 2200 uF, 16V		C2	1
8	063-267	CAPACITOR, ALUM, 1000 uF, 25V		C1	1
9					
10	119-299	SWITCH, PUSHBUTTON, 2 PDT		S1	1
11	121-209	SWITCH PART, ACTUATOR, LEVER, PUSHBUTTON (RED)		(S 1)	1
12	560-405	TRANSFORMER, POWER 115/230V = 16/8V		T1	1
13	580-479	HEATSINK		(X1)	1
14	587-433	IC, VOLTAGE REG., 5V, 500 MA, (TO-220)	1	A1	1
15					
16	615-004	WIRE, BARE #24 AWG			A/R
17					
18	471-112	SCREW, #4-40 PAN HEAD			1
19	501-008	WASHER #4, PLAIN			1
20	496-004	NUT, HEX, CAPTIVE LOCK WASHER #4-40			1
21	600-127	TUBING, SHRINKABLE			A/R

NOTES:

1 STATIC SENSITIVE, SPECIAL HANDLING REQUIRED



NOTES:

1. ASSEMBLY NO. IS 4050736-02

2. MARK DASH NO. PER BDI-1.

3. FOR DIFFERENT VOLTAGES USE BARE WIRE (JUMPER).

4. STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER HEI-1.

Assembly No. 4050736. Power PWA

4050735-03 FRONT PANEL ELECTRONICS ASSEMBLY (w/o DISPLAY) REV. D

4050735-04 FRONT PANEL ELECTRONICS ASSEMBLY (w/DISPLAY)

NEXT HIGHER ASSEMBLY 4010217

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER			
				01	02	03	04
1	4050737-01	P.W.ASSY, VSO & DISPLAY		1	-	-	-
2	4050737-02	P.W.ASSY, VSO & DISPLAY		-	1	-	-
3	4290742-05	FRONT PANEL, FACING		1	-	1	-
4	4290742-06	FRONT PANEL FACING		-	1	-	1
5	6000008-20	KNOB		2	2	1	1
6	121-207	SWITCH PART, ACTUATOR, LEVER, PUSHBUTTON, GREY	(S 1,2,12	3	3	3	3
7	121-208	SWITCH PART, ACTUATOR, LEVER, PUSHBUTTON, BLK	(S 3-11)	9	9	9	9
8	4260449-01	BRACKET, SWITCH SUPPORT		1	1	1	1
9							
10	265-077	BUSHING, PANEL, THD, FLG, .252 I.D.		1	1	1	1
11	471-402	SCREW, FLAT HD, 8-32 X 1.00 LG		1		1	1
12	471-328	SCREW, FLAT HD, 4-40 X .375 LG		2	2	2	2
13							
14	492-103	NUT, HEX, FINISHED 3/8 - 24		1	1	1	1
15	493-007	NUT, #8 NYLON STOP		2	2	2	2
16	496-004	NUT, #4 CAPTIVE WASHER		2	2	2	2
17							
18	503-013	WASHER, SHOULDER, FIBER #8		1	1	1	1
19	4050737-03	PWA, VSO & DISPLAY				1	-
20	4050737-04	PWA, VSO & DISPLAY				-	1

4050737-03 VARIABLE SPEED OSCILLATOR AND DISPLAY PWA (w/o DISPLAY) REV. F

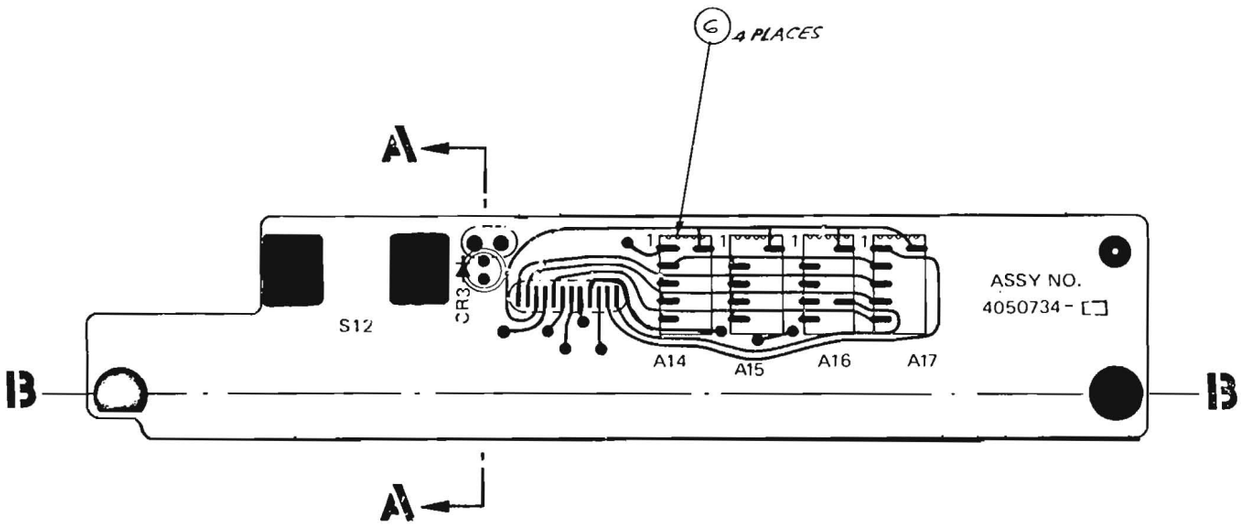
4050737-04 VARIABLE SPEED OSCILLATOR AND DISPLAY PWA (w/DISPLAY)

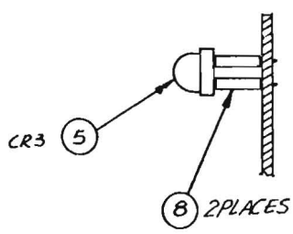
NEXT HIGHER ASSEMBLY 4010217

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01	02	03	04
1	4050730-03	P.W. ASSY, V.S.O.		1	-	-	-
2	4050732-04	P.W. ASSY, V.S.O.		-	1	-	-
3	4050734-01	P.W. ASSY, DISPLAY		1	-	1	-
4	4050734-03	P.W. ASSY, DISPLAY		-	1	-	1
5	4050740-01	CABLE ASSY, VSO BD TO DISPLAY BD		-	1	-	1
6	4840324	SCHEMATIC		REF	-	C	-
7	4840295	SCHEMATIC		-	REF	-	C
8							
9	119-300	SWITCH, PUSHBUTTON, DPDT	S12	1	1	1	1
10							
11	~~611-140~~	~~WIRE, INSULATED, STRANDED, #24 AWG, YEL~~					
12							
13	471-061	SCREW, PAN HD, XREC 4-40 X .312 LG		4	4	4	4
14	496-004	NUT, HEX, CAPTIVE WASHER #4-40		2	2	2	2
15	501-186	WASHER, #4 PLAIN, SMALL PATTERN		4	4	4	4
16	~~496-032~~	~~NUT, HEX, SM. PATTERN, 4-40~~					
17	502-002	LOCKWASHER, SPLIT RING #4		2	2	2	2
18	119-297	SWITCH, PUSHBUTTON, 2 PDT	POS 3-11	REF	REF	REF	REF
19	119-298	SWITCH, PUSHBUTTON, 4 DPT	POS 1 + 2	REF	REF	REF	REF
20							
21							
22	611-183	WIRE, #22, YEL.		A/R	A/R	A/R	A/R
23	4050730-05	PWA, VSO				1	-
24	4050730-06	PWA, VSO				-	1

4050734-01 DISPLAY PWA, w/o DISPLAY REV. E
4050734-03 DISPLAY PWA, w/DISPLAY
NEXT HIGHER ASSEMBLY 4050737

ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01	02	03
1					1	1	1
2					C		-
3	4840295		SCHEMATIC				C
4	4?403?4		SCHEMATIC				
5	581-355		DIODE, LIGHT EMITTING (FC - FLV-110)	CR3	1	1	1
6	581-321		READOUT DEVICE, MODULAR, LED-7 SEGMENT, NUMERIC, BCD INPUT	A14,15, 16,17	-	4	-
7	581-391		READOUT DEVICE DISPLAY (4510 FC)	A14,15,16, 17			4
8	103307-05		STANDOFF, .280		2	2	2





SECTION A-A

NOTES:

1. PART NO. TO BE 4050734-XX.
2. MARK DASH NO. PER BDI-1.
3. KEEP ALL READOUT DEVICES (A14-17) IN LINE AND PERPENDICULAR TO LINE "B-B" PRIOR SOLDER.
4. MASK THESE HOLES PRIOR SOLDER.
5. MATCH BRIGHTNESS CODE LAST DIGIT ± 1 ON A14-A17, ITEM 6.

Assembly No. 4050734. Display PWA

4050730-05 VARIABLE SPEED OSCILLATOR PWA (w/o DISPLAY) REV. J
4050730-06 VARIABLE SPEED OSCILLATOR PWA (w/DISPLAY)
NEXT HIGHER ASSEMBLY 4050737

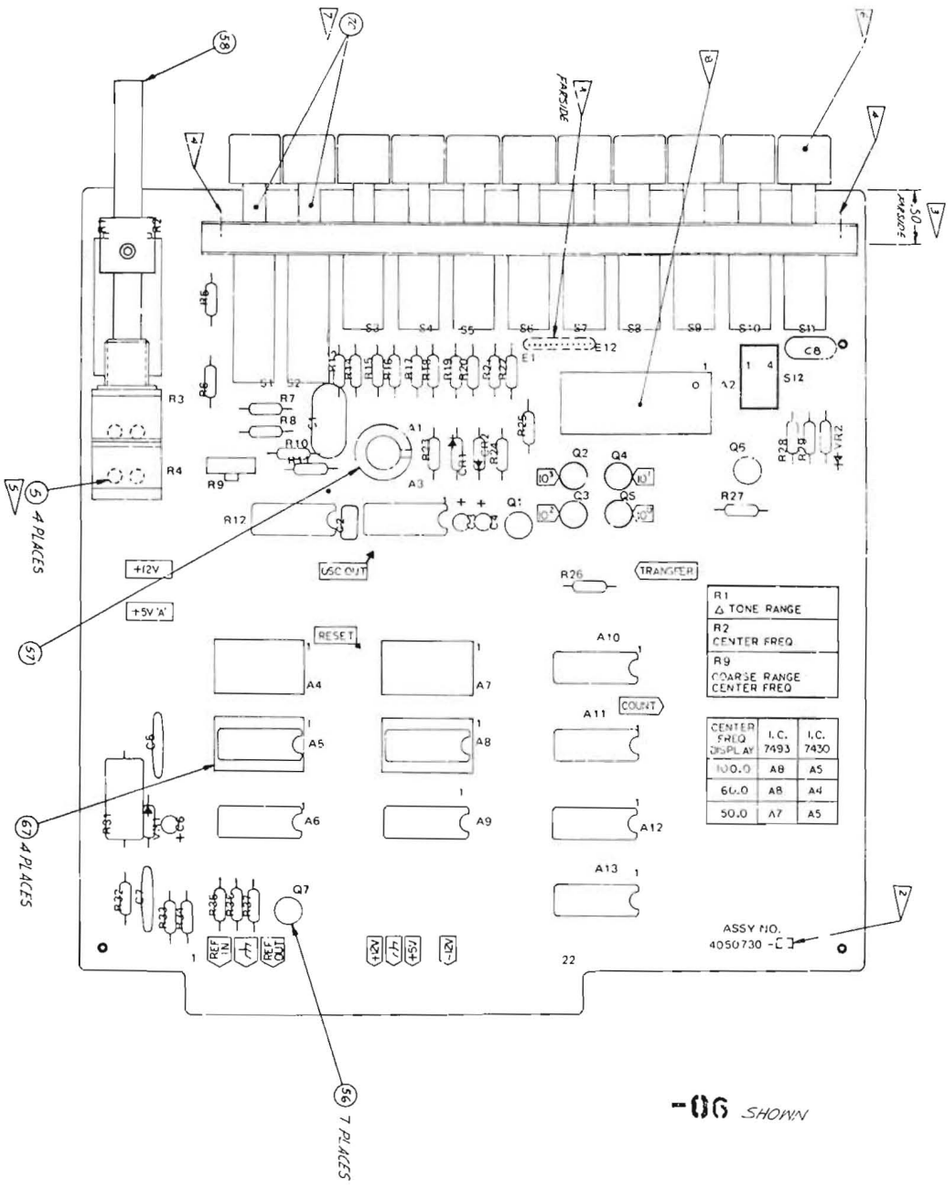
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER					
					01	02	03	04	05	06
1										
2										
3	4840295		SCHEMATIC			REF		REF	-	C
4	4840324		SCHEMATIC		REF		REF		C	-
5	103307-01		STANDOFF	REF: R3,4	4	4	4	4	4	4
6	013-358		DIODE, ZENER, 5.1V, CD32 (1N751A)	VR1	1				-	-
7	013-599		DIODE, CD458 (1N4531)	CR1,2	2	2	2	2	2	2
8	013-358		DIODE, ZENER, 5.1V, CD32 (1N751A)	VR1,2					2	2
9										
10	014-798		TRANSISTOR, (2N3905)	Q2,3,4,5	-	4	-	4	-	4
11	580-109		TRANSISTOR (2N3903)	Q1,6 Q1,6,7	2 1	- 3	2 1	- 3	2 -	- 3
12	034-208		CAPACITOR, MICA, 30 pF, 500V, 5%	C8	1	1	1	1	1	1
13	049-753		RESISTOR, COMP, 2.4K OHMS, 1/4W, 10%	R27,29,33 R27,29,33,35					3 -	- 4
14	041-633		RESISTOR, COMP, 10K OHMS, 1/4W, 10%	R26,27 R26,27,36	2 -	- 3	2 1	- 3	- -	- -
15	041-979		RESISTOR, COMP, 1K OHMS, 1/4W, 10%	R23,24 R23,24,25	2 -	- 3	2 -	- 3	2 -	- 3
16	049-752		RESISTOR, COMP, 750 OHMS, 1/4W, 10%	R28	1	1	1	1	1	1
17	049-753		RESISTOR, COMP. 2.4K OHMS, 1/4W, 10%	R29,33 R29,33,35	2 -	- 3	2 -	- 3	- -	- -
18	049-751		RESISTOR, COMP, 75 OHMS, 2W, 10%	R31	1	1	1	1	1	1
19	041-633		RESISTOR, COMP, 10K OHMS, 1/4W, 10%	R26 R26,36					1 -	- 2
20	066-209		RESISTOR, METAL FILM, 76.8K OHMS, 1/4W, 1%	R10	1	1		1	1	1
21										
22	044-792		RESISTOR, VAR, CERMET, 500 OHMS, 1W, 10%	R1	1	1		1	1	1
23	044-873		RESISTOR, VAR, CERMET, 1K OHMS, 1W, 10%	R2	1	1		1	1	1
24	049-335		RESISTOR, COMP, 1.8K OHMS, 1/4W, 10%	R34 R34,37					1 -	- 2
25	049-335		RESISTOR, COMP, 1.8K OHMS, 1/4W, 10%	R30,34 R30,34,37	2 -	- 3	2 -	- 3	- -	- -
26	049-394		RESISTOR, COMP, 10 OHMS, 1/4W, 10%	R32	1	1	1	1	1	1
27										
28	058-812		RESISTOR, VAR, COMP, 500 OHMS, 0.2W, 20%	R9	1	1		1	1	1
29										
30	062-883		RESISTOR, METAL FILM, 287 OHMS, 1/4W, 1%	R15		1		1	1	1
31	062-885		RESISTOR, METAL FILM, 309 OHMS, 1/4W, 1%	R17,18	2	2	2	2	2	2
32	062-887		RESISTOR, METAL FILM, 332 OHMS, 1/4W, 1%	R20	1	1	1	1	1	1
33	062-888		RESISTOR, METAL FILM, 348 OHMS, 1/4W, 1%	R22	1	1	1	1	1	1
34	066-454		RESISTOR, METAL FILM, 1.91K OHMS, 1/4W, 1%	R6	1	1	1	1	1	1
35	062-982		RESISTOR, METAL FILM, 9.09K OHMS, 1/4W, 1%	R14	1	1	1		1	1
36										

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-4050730 SHEET 2	REV J

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01	02	03	04	05	06
37	066-171	RESISTOR, METAL FILM, 340 OHMS, 1/4W, 1%	R21	1	1	1	1	1	1
38	066-021	RESISTOR, METAL FILM, 178K OHMS, 1/4W, 1%	R13	1	1	1	1	1	1
39	066-194	RESISTOR, METAL FILM, 324 OHMS, 1/4W, 1%	R19	1	1	1	1	1	1
40	066-436	RESISTOR, METAL FILM, 4.12K OHMS, 1/4W, 1%	R8	1	1	1	1	1	1
41	~~042-332~~	~~RESISTOR, METAL FILM, 24.9K OHMS, 1/4W, 1%~~	~~R~~	~~1~~	~~1~~				
42	062-917	RESISTOR, METAL FILM, 768 OHMS, 1/4W, 1%	R11	1	1	1	1	1	1
43	066-921	RESISTOR, METAL FILM, 294 OHMS, 1/4W, 1%	R16	1	1	1	1	1	1
44	066-736	RESISTOR, METAL FILM, 9.53K OHMS, 1/4W, 1%	R5	1	1	1	1	1	1
45	062-721	RESISTOR, METAL FILM, 23.7K OHMS, 1/4W, 1%	R7			1	1	1	1
46	058-928	RESISTOR, VAR, CERMET DUAL, 5K/25K OHMS, 1W, 10%	R3-4	1	1	1	1	1	1
47	039-067	RESISTOR, NETWORK, DISCRETE, 20K OHMS, .15W, 2%	R12	1	1	1	1	1	1
48									
49	037-790	CAPACITOR, TA, PLZD, 2.2 uF, ±20%, 20V	C3,4,6	3	3	3	3	3	3
50	030-145	CAPACITOR, CER MONO, 0.1uF, 50V, 20%	C5,7	2	2	2	2	2	2
51	~~064-231~~	~~CAPACITOR, CER, MONLY, NPO, 3300pF, ±5%, 100V~~	~~C1~~	~~1~~	~~1~~				
52	064-314	CAPACITOR, CER, MONLY, 1.0 uF, ±20%, 50V	C2	1	1	1	1	1	1
53	034-735	CAPACITOR, MICA, DIPPED, 3300 pF, 1%	C1			1	1	1	1
54									
55	121-210	SWITCH, ASSEMBLY, 11 POS, (2 OF 4PDT 9 OF 2PDT)	S1-11	1	1	1	1	1	1
56	280-130	MTG. PAD, TRANSISTOR (TO-18)	REF: Q1-7	7	7	7	7	7	7
57	280-173	SPACER, (8 PIN)	REF: A1	1	1	1	1	1	1
58	281-221	SHAFT, EXTENSION 1.250 LG	REF: R3,4	1	1	1	1	1	1
59	586-075	INTEGRATED CIRCUIT (7400)	A13	-	-	-	-	-	1
60	586-076	INTEGRATED CIRCUIT (7410)	A12	-	-	-	-	-	1
61	586-078	INTEGRATED CIRCUIT (7430)	A5	-	-	-	-	-	1
62	586-116	INTEGRATED CIRCUIT (7473)	A10 A10,11	1 -	- 2	1 -	- 2	1 -	- 2
63	586-283	INTEGRATED CIRCUIT (7493)	A6,8,9	-	3	-	3	-	3
64	586-326	INTEGRATED CIRCUIT (7404)	A3	1	1	1	1	1	1
65	587-026	INTEGRATED CIRCUIT (LM311H)	A1	1	1	1	1	1	1
66	587-434	INTEGRATED CIRCUIT (AY-5-40070) [1]	A2	1	1	-	1	-	1
67	587-024	INTEGRATED CIRCUIT MTG HARDWARE, SOC, 14 PINS	XA4,5,7,8	-	4	-	4	-	4
68									
69									
70	225-304	TAPE, ADHESIVE, TEFLON .25 WD, .0125 THK	REF S1/S2					A/R	A/R

NOTES:

[1] STATIC SENSITIVE, SPECIAL HANDLING REQUIRED



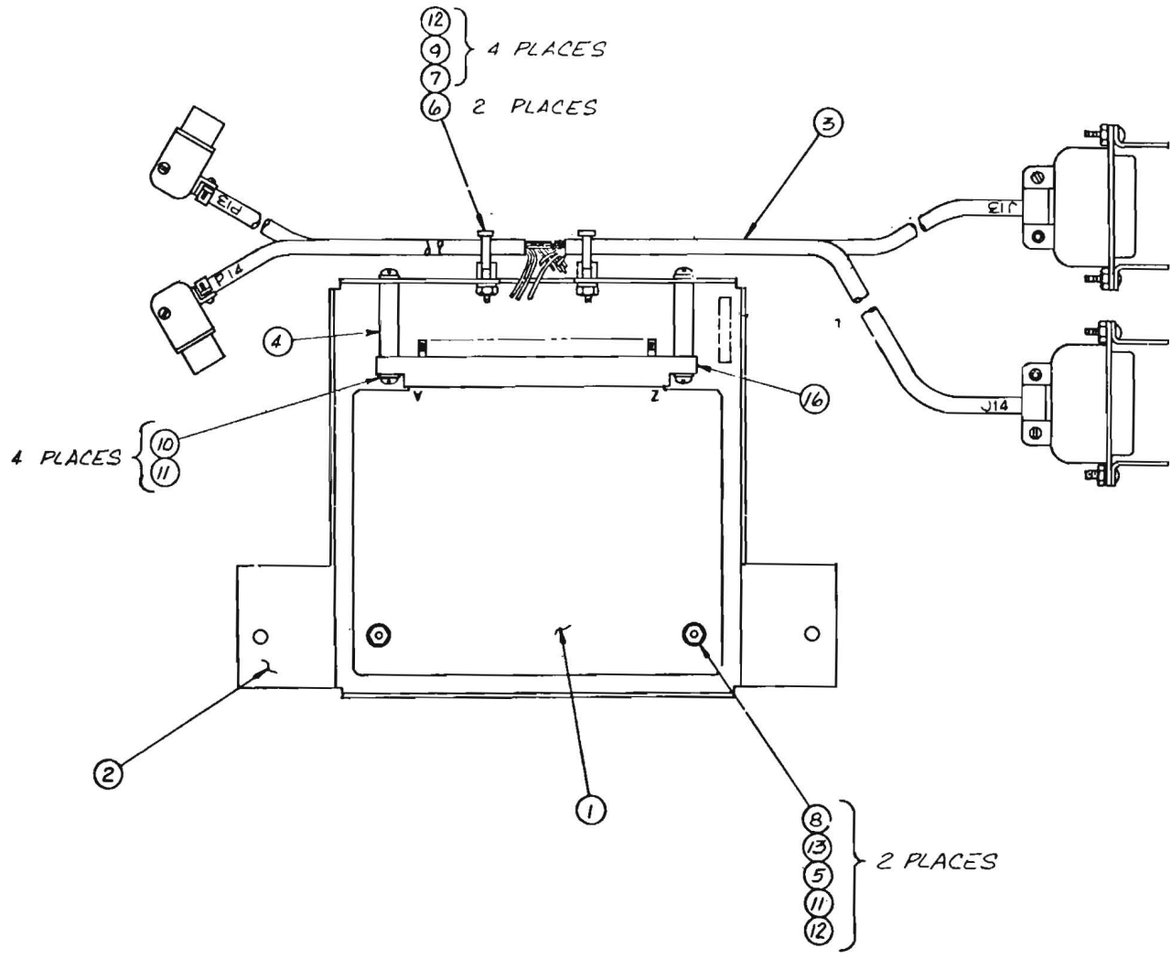
NOTES:

1. PART NO. TO BE 4050730-XX.
2. MARK DASH NO PER BDI-1.
3. MASK THESE 12 HOLES (E1 TO E12) AND AREA SHOWN PRIOR SOLDER.
4. ENLARGE THESE TWO EXISTING HOLES ON BRACKET TO .140 DIA PRIOR ASSEMBLY.
5. INSERT STANDOFF (ITEM 5) TO PIN #1 & #3 OF R3 AND R4 PRIOR SOLDER.
6. PUSHBUTTON SHOWN FOR REFERENCE.
7. APPLY ITEM 7 ON COMPONENT SIDE OF PCB. UNDER S1 & S2 TO PREVENT POTENTIAL SHORT.
8. STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER HLI-1.

Assembly No. 4050730. Variable Speed Oscillator PWA

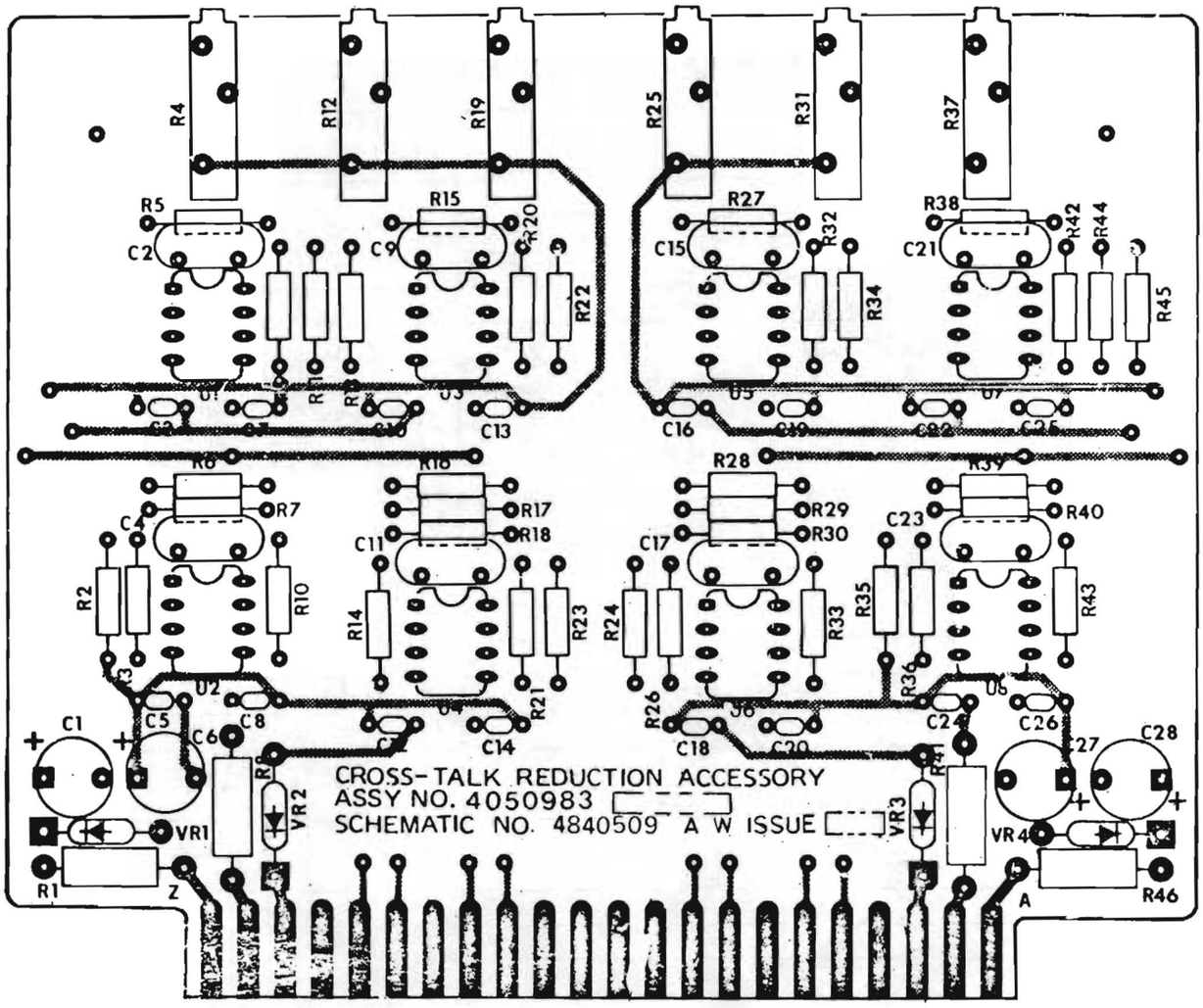
4020458-01 CROSSTALK REDUCTION ASSEMBLY REV. B
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4050983-01		CROSSTALK REDUCING ACCESSORY PWA		1
2	4291036-01		CROSSTALK REDUCING ACCESSORY, BOX		1
3	4050998-01		HARNESS, CROSSTALK REDUCTION ACCESSORY		1
4	280-354		SPACER, THD 4-40 UNC-2B X1.00 LG		2
5	280-660		SPACER, THD 4-40 UNC-2B X .25 LG		2
6	302-344		CRADLE, CLIP		4
7	302-335		TIE WRAP		2
8	473-328		SCREW, SEM 4-40 UNC-2B X.625		2
9	471-328		SCREW, X-REC, 4-40 UNC-2B X .38 LG		4
10	473-324		SCREW, SEM, 4-40 UNC-2B X .25 LG		4
11	501-169		WASHER, PLAIN #4		6
12	496-004		NUT, KEP, 4-40 UNC-2B		6
13	502-024		WASHER, LOCK #4		2
14					
15			SLEEVING, SHRINK		A/R
16	143-198		CONNECTOR, PCB, 22 PIN, DUAL CONTACT	P101	1
17					
18	615-002		WIRE BARE SOLID #22		A/R

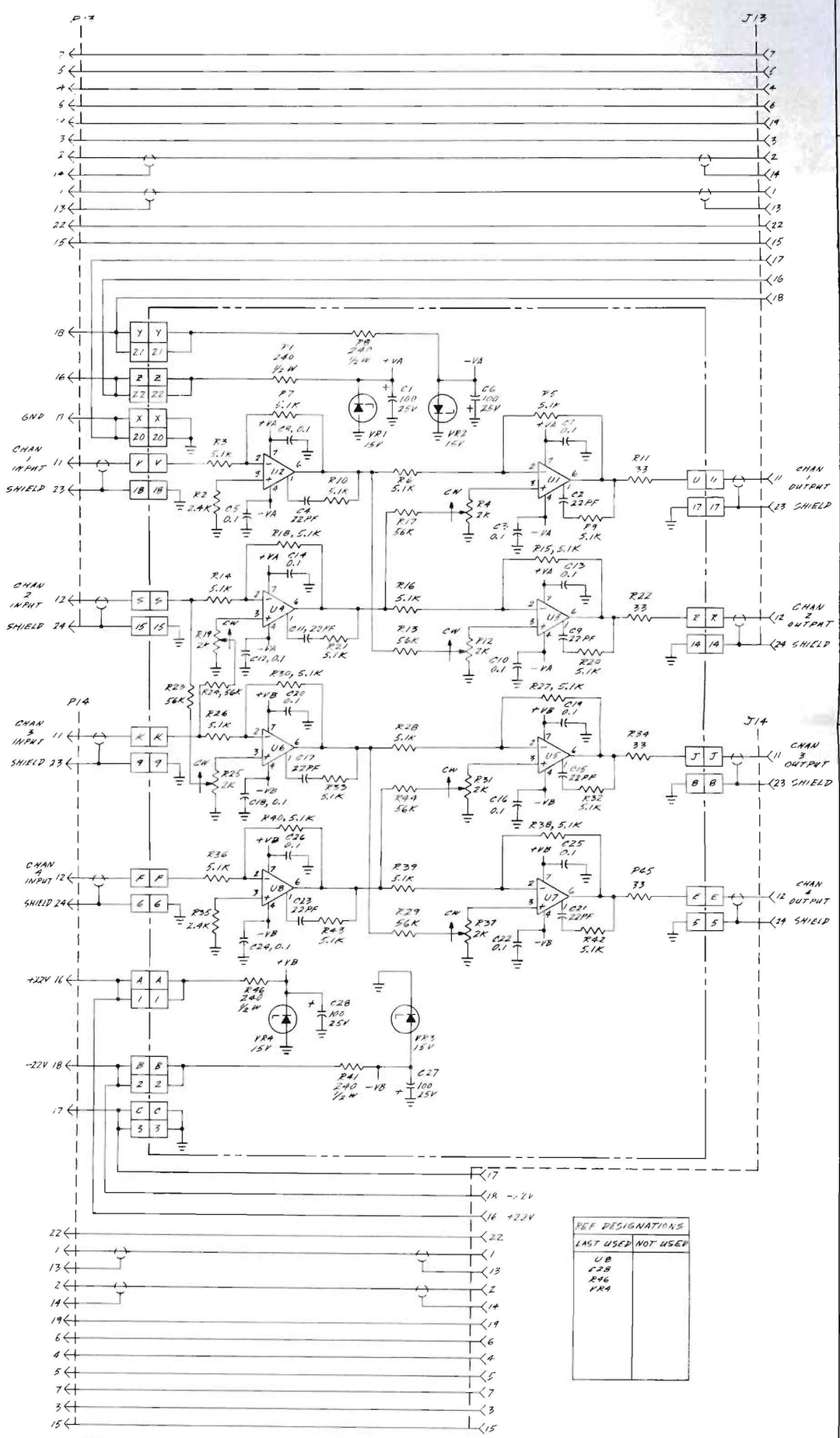


Assembly No. 4020458. Crosstalk Reduction

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1				
2	4840509	SCHEMATIC		(A)
3				
4	034-269	CAPACITOR, MICA, 22pF, 500V ±5%,	C2, 4, 9, 11, 15, 17, 21, 22	8
5	064-062	CAPACITOR, MONO, .1uF, 100V ±20%	C3,5,7,8,10,12,13,14, 16,18-20,22,24,25,26	16
6	037-901	CAPACITOR, TANT, 100uF, 20V ±20%	C1, 6, 27, 28	4
7				
8	581-290	DIODE, ZENER, 15V, 1W, ± 5%	VR1-4 (1N4744A)	4
9				
10	041-473	RESISTOR, FIXED, 240 OHM, 1/2W, 5%	R1, 8, 41, 46	4
11	056-833	RESISTOR, FIXED, 56K OHM, 1/4W, 5%,	R13, 17, 23, 24, 29, 44	6
12	066-928	RESISTOR, FIXED, 2.4K OHM, 1/4W, 5%,	R2, 35	2
13	066-834	RESISTOR, CARBON, 33 OHM, 1/4W, 5%	R22, 11, 34, 45	4
14	066-842	RESISTOR, CARBON, 5.1K, 1/4W, 5%	R3,5-7,9,10,14-16,18,20 21,26-28,30,32,33,36,38-40 42,43	24
15				
16	058-341	RESISTOR, VARIABLE, 2K OHM, 3/4W, 10%	R4, 12, 19, 25, 31, 37	6
17				
18	587-656	INTEGRATED CIRCUIT (LM318)	U1-8	18
19				
20				
21				
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37				



Assembly No. 4050983. Crosstalk Reduction PWA



NOTES: UNLESS OTHERWISE SPECIFIED:

1. RESISTOR VALUES ARE IN OHMS, 1/4W, ±5%
2. CAPACITOR VALUES ARE IN MICROFARADS
3. INTEGRATED CIRCUITS UTILIZED ARE OPNL AMPL LM318

AMPEX 4890407-02

Schematic No. 4840509A.
Crosstalk Reduction PWA

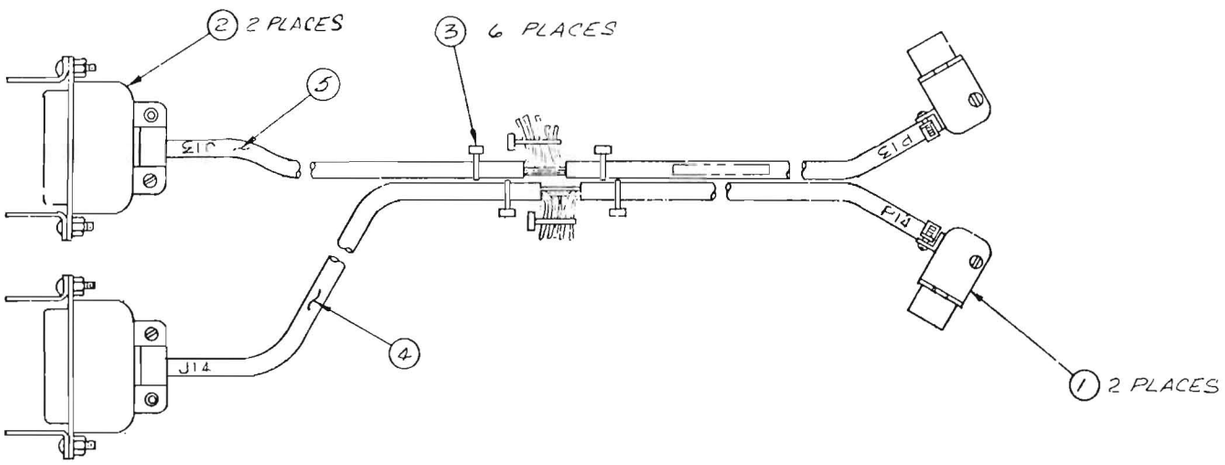
6-241/6-242

4840509

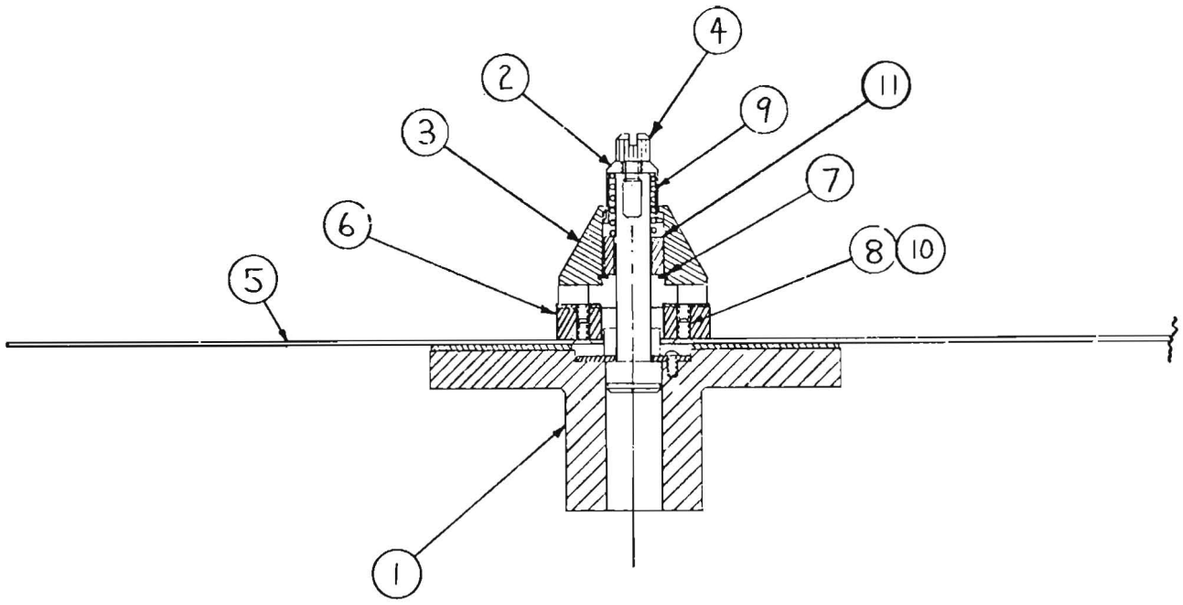
DISTR CODE:

4050998-01 CROSSTALK REDUCTION HARNESS ASSEMBLY REV. A
NEXT HIGHER ASSEMBLY 4020458

ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	139-840		CONNECTOR, PLUG, SIDE ENTRY		2
2	140-311		CONNECTOR, RECEPTACLE, TOP ENTRY		2
3	302-335		STRAP, CABLE		6
4			SLEEVING, PVC FLEX, BLACK		A/R
5			SLEEVE, PVC SHRINK BLACK REF: ITEM 7		A/R
6			WIRE, STRANDED, 24 AWG		A/R
7			WIRE, SHIELDED, 26 AWG		A/R



Assembly No. 4050998. Crosstalk Reduction Harness



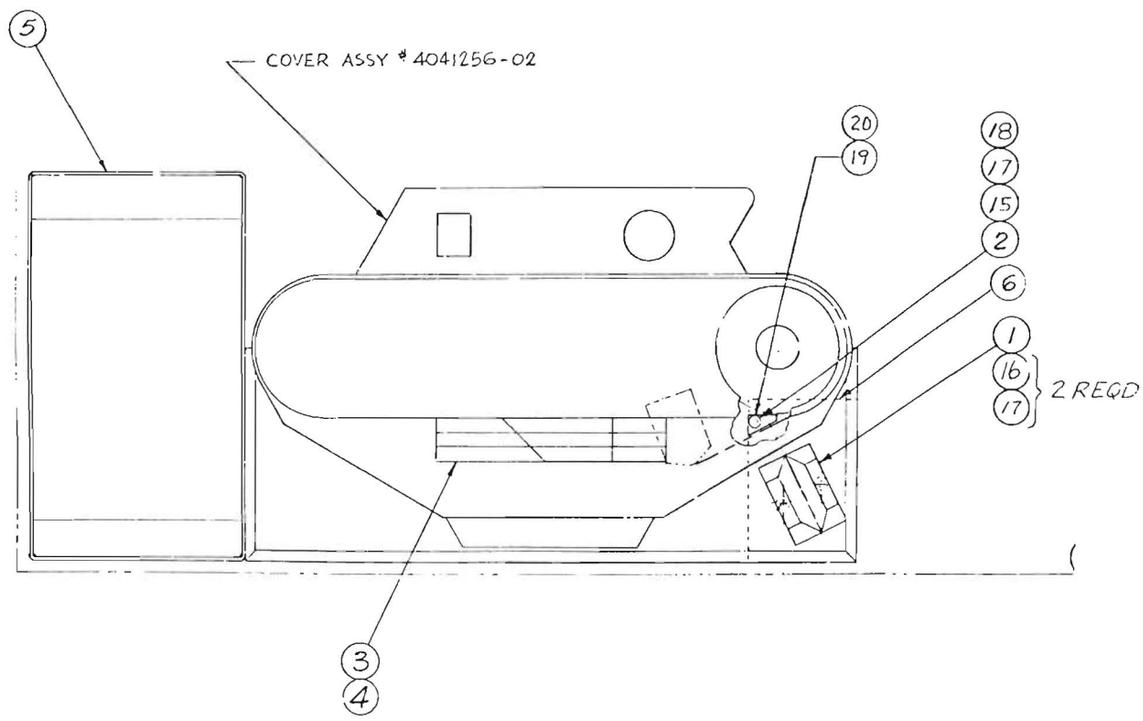
AB	AA	ITEM NO.	PART NUMBER	DESCRIPTION
1	1	13	4890422-01	INSTALLATION INSTRUCTIONS
2	2	12	73062	LABEL, AMPEX LOGO
2	2	11	4220352-01	SPACER, CLAMP
AR	AR	10	018-030	ADHESIVE, THREAD LOCKING
2	2	9	352-498	SPRING (.420 O.D. × .045 ØWIRE 7/8 LG.)
4	4	8	471-378	SCREW, F.H., 4-40 × .19 LG, SST
2	2	7	430-535	RING RETAINING
2	2	6	4220340-01	HUB
2	2	5	4690111-01	FLANGE, PLATE
2	2	4	4400280-01	SCREW - HOLDDOWN
2	2	3	4120044-01	CLAMP
2	2	2	4100093-01	CAP
—	2	1	4041310-01	TURNTABLE ASSY

PARTS LIST

Assembly No. 4010299. CCIR Turntable Holddown Kit

4010292-AA EDIT KIT ASSEMBLY (1/4 INCH) REV. C
4010292-AB EDIT KIT ASSEMBLY (1/2 INCH)
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

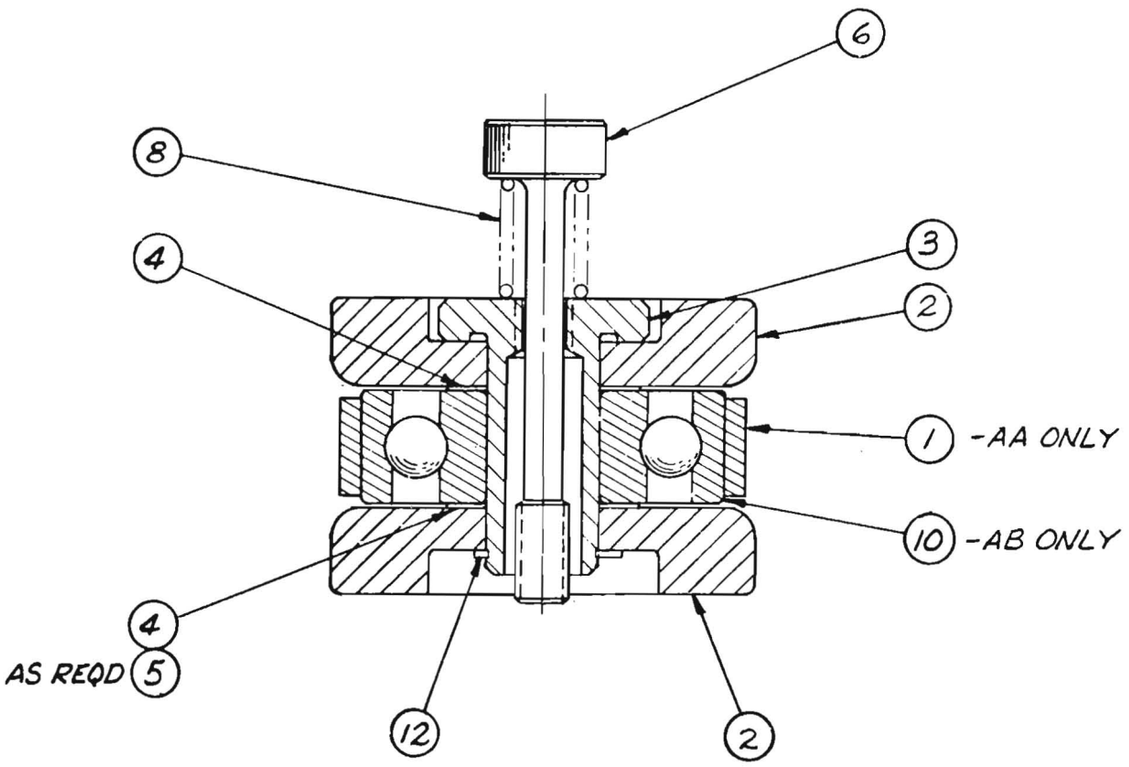
ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -AA	-AB
1	4220334-01		BLOCK, MARKING		1	1
2	4220335-01		BLOCK, SUPPORT		1	1
3	4220348-01		BLOCK, SPLICING, 1/4 TAPE		1	-
4	4220349-01		BLOCK, SPLICING, 1/2 TAPE		-	1
5	4291051-01		TRAY		1	1
6	4930514-02		TEMPLATE, DRILL		1	1
7						
8						
9						
10	4890420-01		INSTALLATION INSTRUCTIONS		1	1
11						
12						
13						
14						
15	470-171		SCREW, CAP HEX SOC, 4-40 X 1.0 LG		1	1
16	473-324		SCREW, PAN HD., SEM, XREC DRIVE, 4-40 X .25 LG		2	2
17	501-169		WASHER, PLAIN, .25 O.D., #4		3	3
18	502-002		WASHER, LOCK, HELICAL SPRING, #4		1	1
19	471-338		SCREW, MACH., FLAT HEAD, 6-32 X .500 LG		1	1
20	492-009		NUT, PLAIN, HEX, 6-32		1	1



Assembly No. 4010292. Edit Kit

4030431-AA TAPE GUIDE ASSEMBLY, 1/4 INCH (SUPPLY) REV. B
4030431-AB TAPE GUIDE ASSEMBLY, 1/4 INCH (TAKEUP)
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -AA	-AB
1	4041293-01		TIRE ASSY		1	-
2	4100092-01		CAP		2	2
3	4210401-01		SHAFT		1	1
4	4280033-AA		SHIM		2	2
5	4280033-AB		SHIM		A/R	A/R
6	4400275-AA		SCREW		1	1
7						
8	352-443		SPRING, COMPRESSION		1	1
9						
10	4200095-02		BEARING, BALL, RADIAL		-	1
11						
12	430-419		RETAINING RING, EXTERNAL		1	1
13						
14						
15						

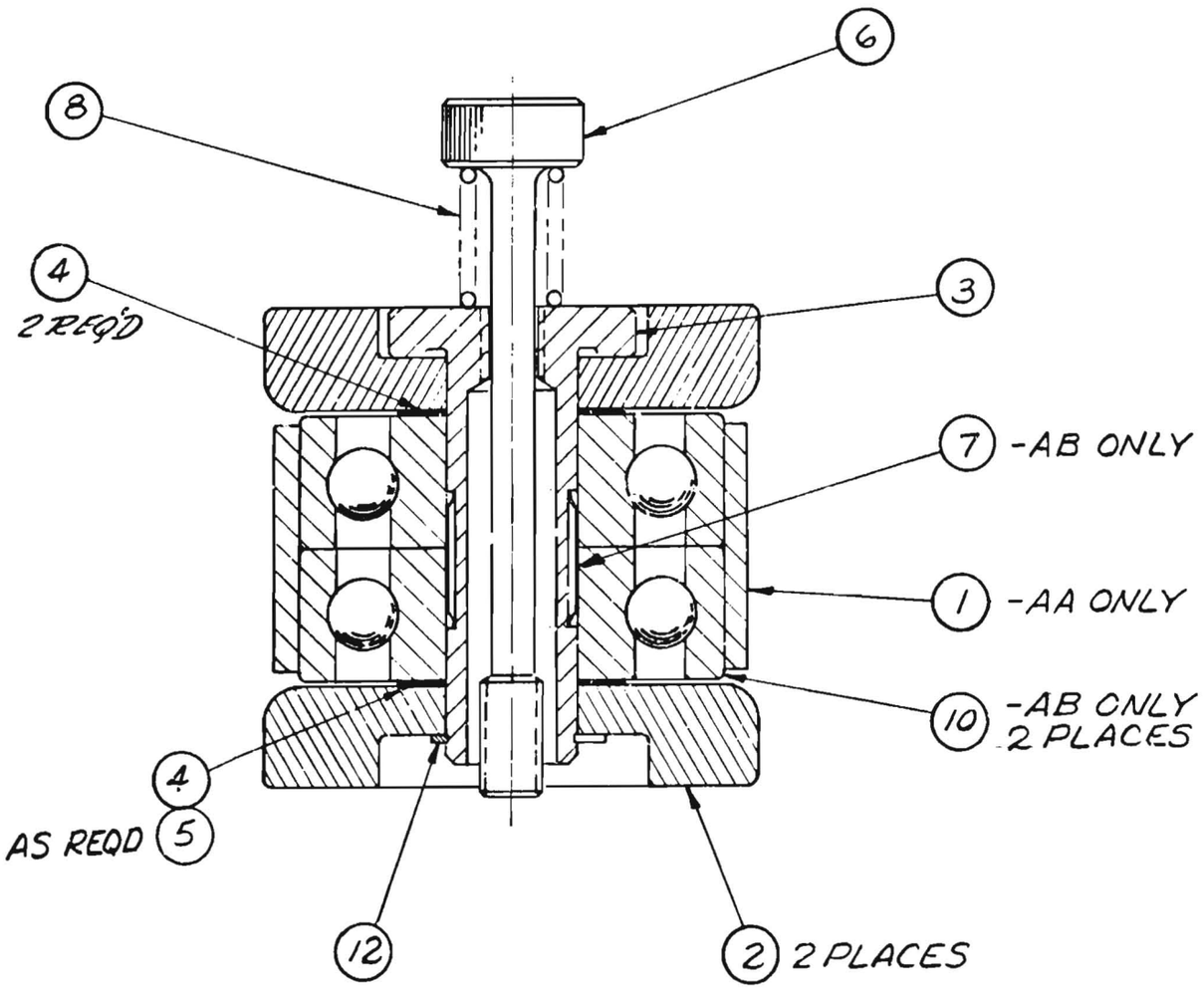


-AA SHOWN

Assembly No. 4030431. Tape Guide Assembly, 1/4 inch

4030432-AA TAPE GUIDE ASSEMBLY, 1/2 INCH (SUPPLY) REV. C
4030432-AB TAPE GUIDE ASSEMBLY, 1/2 INCH (TAKEUP)
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -AA	-AB
1	4041294-01		TIRE ASSY		1	-
2	4100092-01		CAP		2	2
3	4210402-01		SHAFT		1	1
4	4280033-AA		SHIM		3	3
5	4280033-AB		SHIM		A/R	A/R
6	4400275-AB		SCREW		1	1
7	302-556		RING, TOLERANCE		-	1
8	352-443		SPRING COMPRESSION		1	1
9						
10	4200095-02		BEARING, BALL, RADIAL		-	2
11						
12	430-419		RETAINING RING, EXTERNAL		1	1



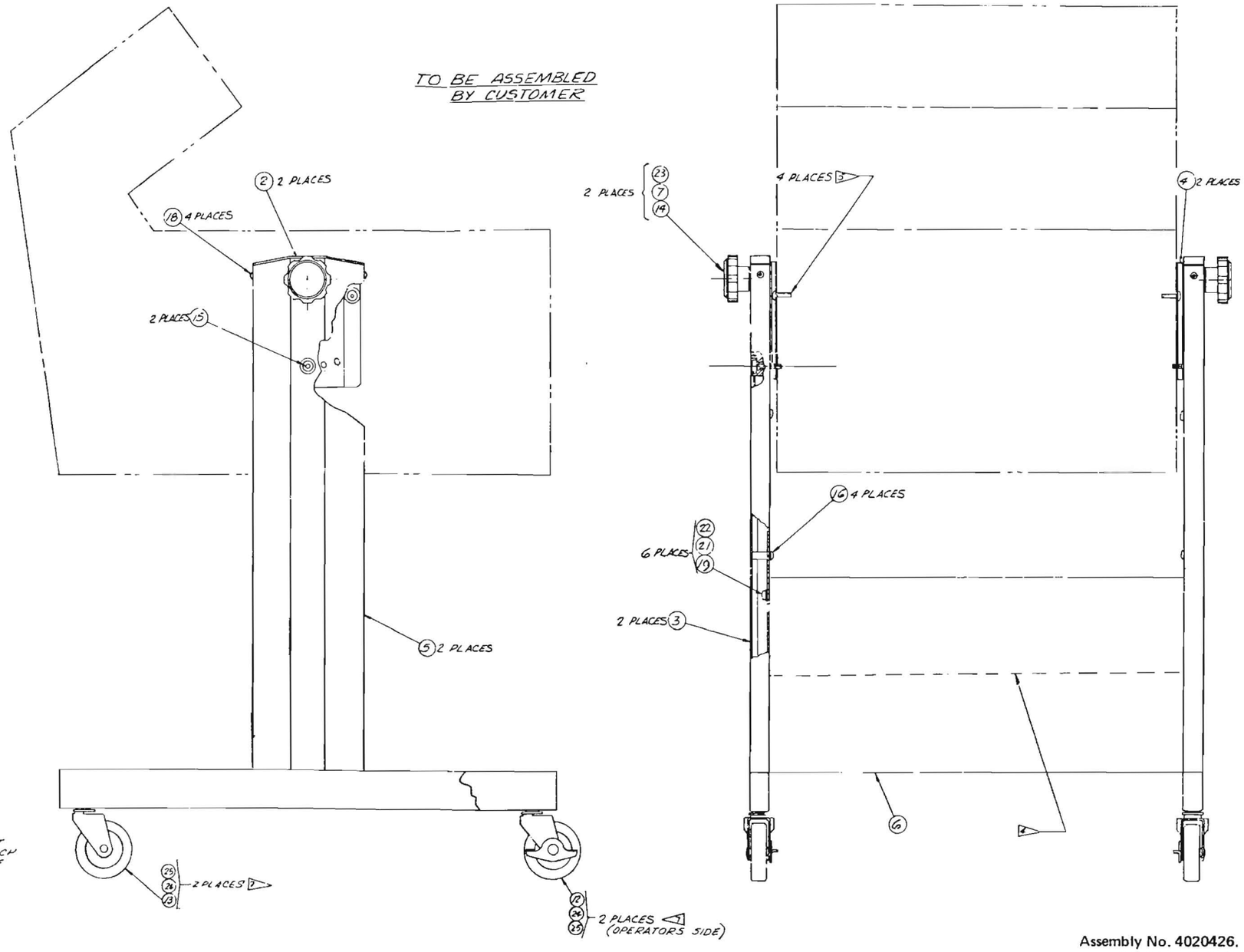
-AA SHOWN

Assembly No. 4030432. Tape Guide Assembly, 1/2 inch

4020426-02 PEDESTAL ASSEMBLY REV. J

NEXT HIGHER ASSEMBLY 4010294,4010295, 4010296,4010297

ITEM NO.	PART NUMBER	E	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1	~~4041268-02~~		~~KNOB ASSY.~~		~~2~~	~~2~~
2	4150362-01		CAP, TOP		2	2
3	4150368-02		TRIM STRIP		2	2
4	4150369-01		PLATE, PIVOT		2	2
5	4150370-02		WELDMENT		2	2
6	4041267-01		PANEL ASSY		1	1
7	4220336-01		COLLAR, PIVOT			2
8						
9						
10	082-066		CASTER WITHOUT BRAKE SWIVEL		2	-
11	082-065		CASTER WITH BRAKE SWIVEL		2	-
12	082-073		CASTER, SWIVEL, LOCKING			2
13	082-074		CASTER, SWIVEL, NON-LOCKING			2
14	230-163		KNOB, TORQUE			2
15	470-655		SCREW 1/4-20-1 CAP HD HEX SOC, BLK OXIDE		2	2
16	470-531		SCREW 10-32x1/2 BUTTON HD HEX SOC BLK OXIDE		4	4
17	470-045		SCREW 1/4-20x1/2" CAP HD HEX SOC CAD PLATE		6	-
18	472-954		SCREW 6-32 x.375 BUTTON HD HEX SOC BLK OXIDE		4	4
19	470-047		SCREW, 1/4-20 X 3/4 CAP, HEX SOC			6
20						
21	501-067		WASHER PLAIN 1/4		6	6
22	502-006		WASHER LOCK SPLIT 1/4		6	6
23	502-426		WASHER, PLAIN, NYLON .750 ID x 1.12 OD x .031		2	2
24	502-043		WASHER, LOCK, SPLIT 3/8			4
25	480-110		BOLT, HEX HD, 3/8 - 16 X 1.25 LG			4



NOTES:

1. PART NO IS 4020426-02
2. MARK PART NO. WITH PREFIX "ASSY" PER BDI-1.
3. ITEM 6 SHOWN PICTORIALLY ASSEMBLED. ASSEMBLY WILL BE SHIPPED, WITH ITEM 6 & MOUNTING HARDWARE UNASSEMBLED.
8. POSITION SEAM TO FARSIDE.
5. HARDWARE (1/4-20 HEX SOC HD SCREWS & WASHERS) COMES WITH CABINET ASSY (NOT WITH PEDESTAL). REMOVE AND USE TO ATTACH PIVOT PLATES (ITEM 4) TO EACH SIDE OF CABINET.
6. FOR PROCUREMENT SEE LV4020426.
7. CASTERS TO BE BOLTED TO WELDMENTS BY FACTORY

Assembly No. 4020426.
Pedestal Assembly

4020429-01 RISER KIT REV. A

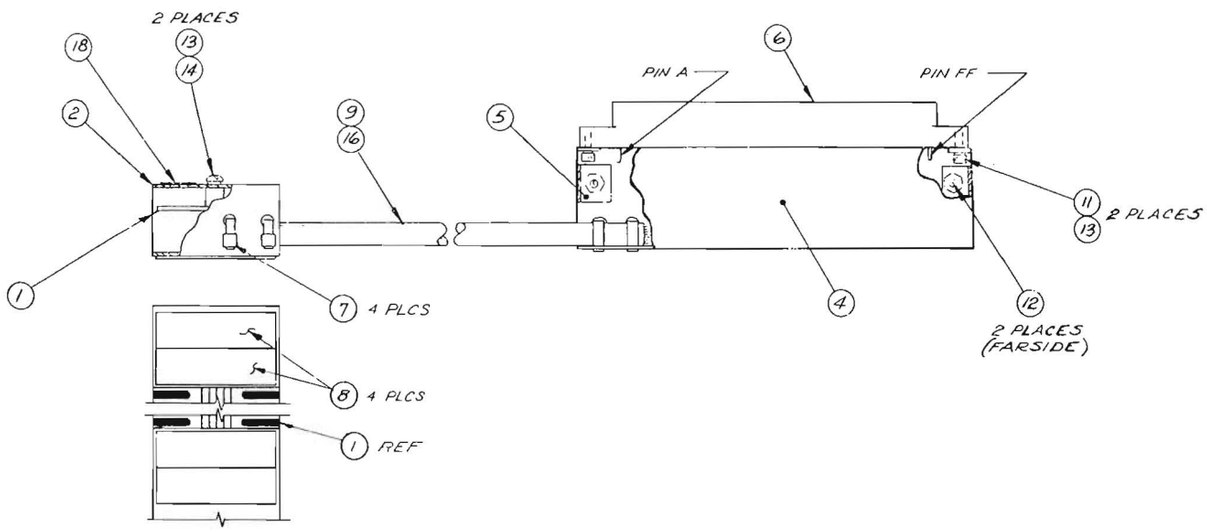
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4290849-01	ENCLOSURE, BOTTOM BRIDGE 3 OR 4 CH.		1
2				
3				
4				
5	470-037	SCREW, CAP, HEX SOCKET #10-32 x .438 LG		8
6	502-005	WASHER, LOCK, #10 SPRING		8

4020432-01 TWO WAY EXTENSION ACCESSORY CONNECTOR ASSEMBLY REV. B

NEXT HIGHER ASSEMBLY 4010294,4010295, 4010296,4010297

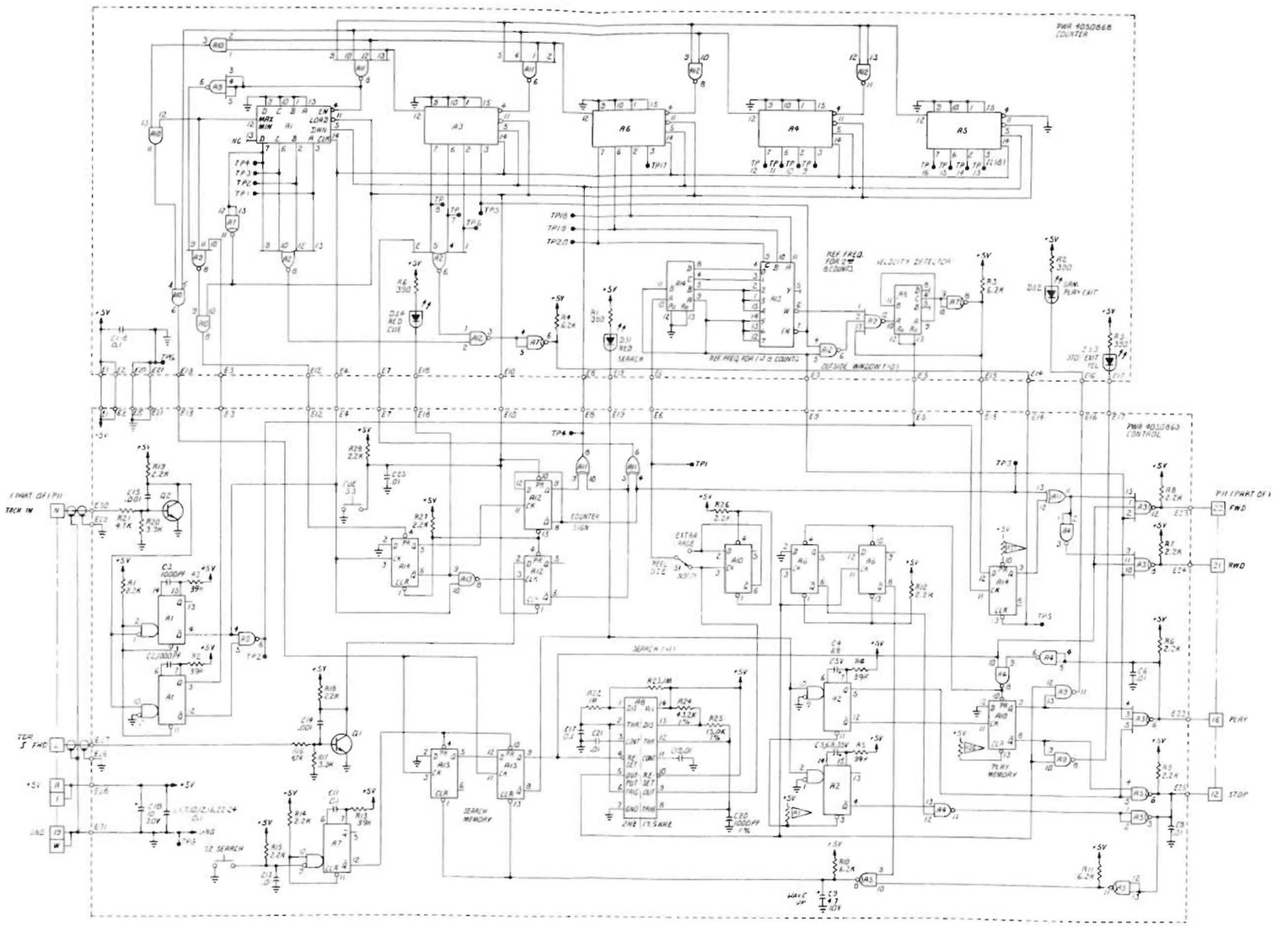
ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1					1
2	4290960-01		COVER, ACCESSORY CONNEC. EXTENSION		1
3					
4	4260574-01		BRACKET, ACCESSORY CONNECTOR		1
5	4290958-01		COVER, ACCESSORY CONNECTOR		1
6	143-804		CONNECTOR, PCB, 56 PIN		1
7	302-379		TIE-WRAP		4
8	225-353		TAPE, ADHESIVE, DOUBLE SIDED FOAM		A/R
9	600-057		SLEEVING, VINYL, 1/2"		AR
10			SLEEVING, SHRINK, CLEAR		A/R
11	470-008		SCREW, CAP, SKT HEAD, 4-40 X .250		2
12	476-998		SCREW, SHEET METAL, 6-20 X .25		2
13	502-002		LOCKWASHER, #4		4
14	471-060		SCREW, PAN HEAD, 4-40 X .250		2
15					
16			WIRE, INSULATED, 24 AWG		AR
17					
18	6000035-01		LABEL, IDENTIFICATION		1



Assembly No. 4020432. Two Way Extension Accessory Connector

4010282-01 SINGLE POINT SEARCH-TO-CUE ASSEMBLY REV. E
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

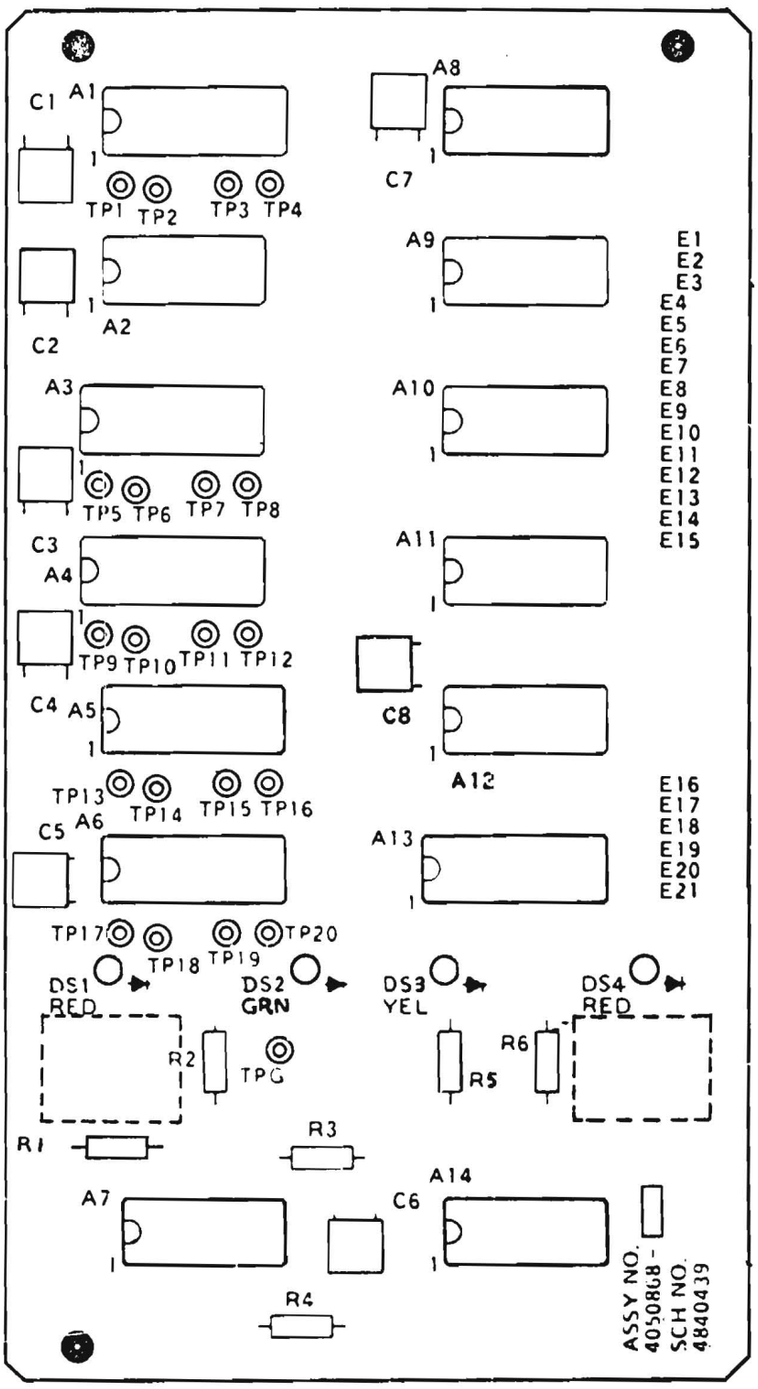
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01
1	4050868-01	PRINTED WIRING ASSEMBLY, COUNTER		1
2	4041287-01	CASE, SUBASSEMBLY		1
3				
4	4050869-01	PRINTED WIRING ASSEMBLY, CONTROL		1
5				
6				
7	4050875-01	HARNESS		1
8				
9	4840439	SCHEMATIC		A
10	4100080-AA	PUSHBUTTON		2
11	4150376-02	CASE, BOTTOM		1
12	4150377-01	CASE, TOP		-
13	4110303-02	OVERLAY		1
14	4330357-01	LOCKING PLATE		4
15				
16	225-432	TAPE, DOUBLE SIDED		AR
17				
18	280-327	SPACER, THREADED, HEX, 4-40 X .50 LG		6
19	302-335	STRAP, CABLE		A/R
20	302-379	TIE WRAP		1
21	470-010	SCREW, CAP, 4-40 . 3/8		4
22	471-575	SCREW, BINDER HD, 4-40 X 5/16		2
23	501-169	WASHER, FLAT, #4		6
24	502-002	WASHER, SPRING LOCK		4
25	616-572	CABLE, RIBBON		2
26	6000022-20	LABEL, IDENTIFICATION		1
27				
28	473-929	SCREW, HEX HD., 4-40 X .437 LG		6



Schematic No. 4840439A.
Single Point Search-to-Cue
Assembly

4050868-01 SINGLE POINT SEARCH-TO-CUE COUNTER PWA REV. A
NEXT HIGHER ASSEMBLY 4010282

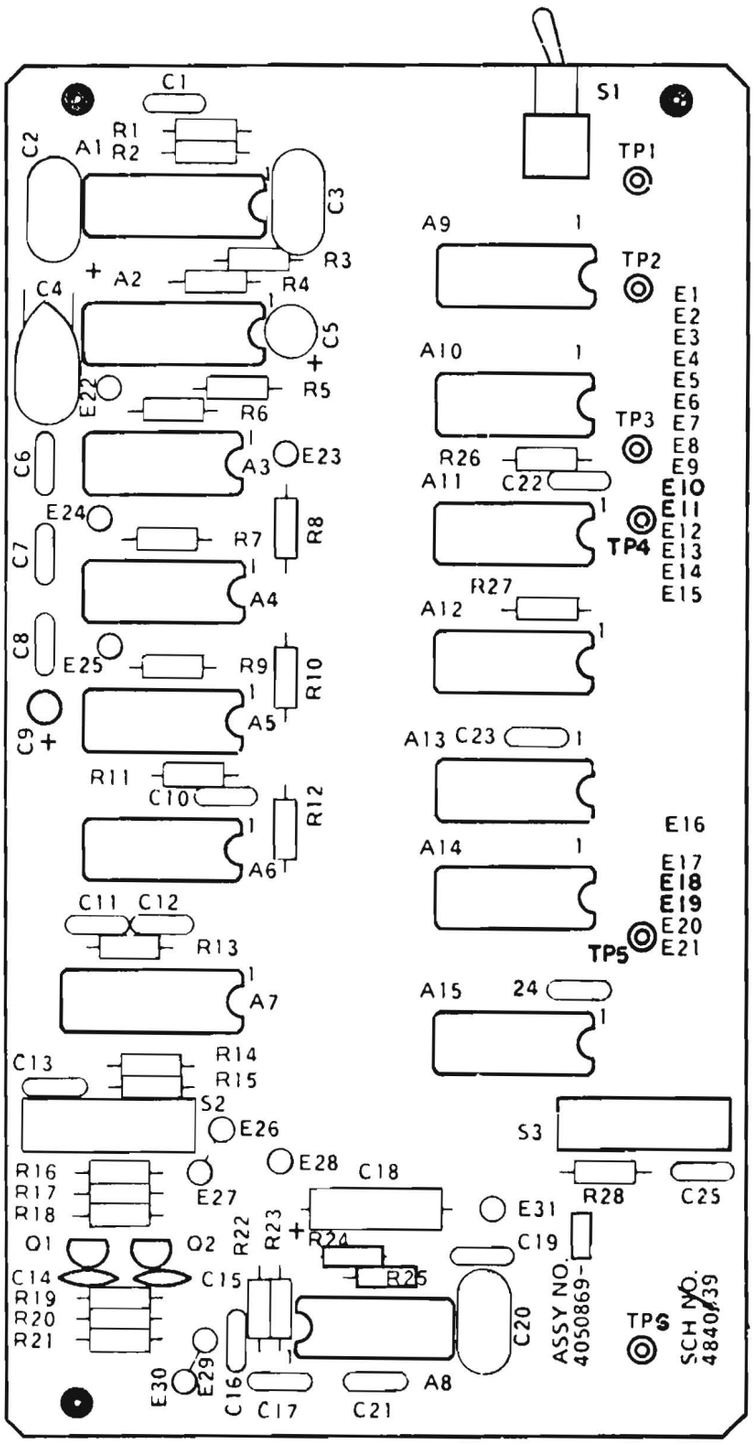
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01
1				1
2				
3	4840439	SCHEMATIC		A
4				
5				
6	064-062	CAPACITOR, CER MONO, 0.1uF, 20%, 100V	C1-8	8
7				
8				
9	066-816	RESISTOR, CF, 390 OHM, 5%, 1/4W	R1,2,5,6	4
10	066-843	RESISTOR, CF, 6.2K OHM, 5%, 1/4W	R3,4	2
11				
12				
13	581-399	LED, YELLOW (HP5082-4584)	DS3	1
14	581-400	LED, RED (HP5082-4684)	DS1,4	2
15	581-401	LED, GREEN (HP5082-4984)	DS2	1
16				
17				
18	586-075	I C, QUAD 2-INPUT NAND (7400)	A12	1
19	586-759	I C, QUAD 2-INPUT AND (7408)	A10	1
20	586-076	I C, TRIPLE 3-INPUT NAND (7410)	A9	1
21				
22	586-077	I C, DUAL 4-INPUT NAND (7420)	A11	1
23	587-051	I C, DUAL 4-INPUT NOR (7425)	A2	1
24	586-784	I C, QUAD 2-INPUT NAND, OPEN COLL. (7438)	A7	1
25				
26	586-703	I C, DATA SELECTOR (74151)	A13	1
27	587-766	I C, COUNTER, UP/DOWN SYN (74LS191)	A1,3-6	5
28	589-238	I C, COUNTER, 4-BIT BINARY (74LS293)	A8,14	2



Assembly No. 4050868. Single Point Search-to-Cue Counter PWA

4050869-01 SINGLE POINT SEARCH-TO-CUE CONTROL PWA REV. A
NEXT HIGHER ASSEMBLY 4010282

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1				
2				
3	4840439	SCHEMATIC		A
4				
5	014-653	TRANSISTOR (2N3904)	Q1,2	2
6				
7	034-311	CAPACITOR, MICA, 1000pF, 1%, 100V	C2,3,20	3
8	064-152	CAPACITOR, CERAMIC, .001uF, 10%, 50V	C14,15	2
9	064-116	CAPACITOR, CERAMIC, .01uF, +80-20%, 50V	C6,8,13,19,21,25	6
10	064-062	CAPACITOR, MONO, 0.1uF, 20%, 100V	C1,7,10-12,16, 17,22-24	10
11				
12	037-962	CAPACITOR, TANT, DIPPED, 4.7uF, 20%, 10V	C9	1
13	037-931	CAPACITOR, TANT, DIPPED, 6.8uF, 20%, 35V	C5	1
14	037-109	CAPACITOR, TANT, TUBULAR, 10uF, 20%, 20V	C18	1
15	037-948	CAPACITOR, TANT, DIPPED, 68uF, 20%, 25V	C4	1
16				
17	066-689	RESISTOR, CF, 2.2K, 5%, 1/4W	R1,6-9,12,14,15, 18,19,26-28	13
18	066-827	RESISTOR, CF, 3.9K, 5%, 1/4W	R17,20	2
19	066-668	RESISTOR, CF, 4.7K, 5%, 1/4W	R16,21	2
20	066-843	RESISTOR, CF, 6.2K, 5%, 1/4W	R10-11	2
21				
22	062-694	RESISTOR, MF, 15.0K, 1%, 1/4W	R25	1
23	066-805	RESISTOR, MF, 43.2K, 1%, 1/4W	R24	1
24	066-860	RESISTOR, CF, 39K, 5%, 1/4W	R2-5,13	5
25	066-673	RESISTOR, CF, 1.0M, 5%, 1/4W	R22,23	2
26				
27	119-367	SWITCH, MOMENTARY, N.O.	S2,3	2
28	119-488	SWITCH, TOGGLE	S1	1
29				
30	586-075	IC, QUAD 2-INPUT NAND (7400)	A4,9,13	3
31	586-915	IC, TRIPLE 3-INPUT NAND, OPEN COLL. (7412)	A3	1
32	586-784	IC, QUAD 2-INPUT NAND, OPEN COLL. (7438)	A5	1
33	586-108	IC, FLIP-FLOP, DUAL D (7474)	A6,10,12,14,15	5
34				
35	586-705	IC, QUAD EXCLUSIVE OR (7486)	A11	1
36	587-431	IC, DUAL MONO STABLE MULTI (74221)	A1,2,7	3
37	589-254	IC, DUAL TIMER (NE556A)	A8	1



Assembly No. 4050869. Single Point Search-to-Cue Control PWA

4050875-01 SINGLE POINT SEARCH-TO-CUE HARNESS ASSEMBLY REV. B
NEXT HIGHER ASSEMBLY 4010282

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4260574-01	BRACKET, ACCESSORY CONNECTOR		1
2	4290958-01	COVER, ACCESSORY CONNECTOR ▽1		1
3				
4	180-223	TERMINAL STRIP, 6 POST	TS1	1
5	143-804	CONNECTOR, 56 PIN	P11	1
6				
7	302-379	TIE WRAP		2
8				
9	470-008	SCREW, CAP, SOC. HD., 4-40 X .25		2
10	472-113	SCREW, PAN HD, 2-56 X .25		2
11	476-998	SCREW, SELF TAPPING, 6-20 X .25, HEX, WASHER HD		2
12				
13	492-007	NUT, HEX, 2-56 ▽1		2
14	502-001	WASHER, SPRING LOCK, #2		2
15	502-002	WASHER, SPRING LOCK, #4		2
16				
17	600-043	SLEEVING, PVC, FLEXIBLE, (.330 ID) BLK		AR
18	600-131	SLEEVING, SHRINKABLE, (.125 ID) CLR		AR
19	611-722	WIRE, 16 AWG, RED		AR
20	611-723	WIRE, 16 AWG, BLK		AR
21	611-256	WIRE, PVC, 20 AWG, BLK		AR
22	614-848	WIRE, PVC, 24 AWG, WHT-RED		AR
23	614-849	WIRE, PVC, 24 AWG, WHT-ORN		AR
24	614-874	WIRE, PVC, 24 AWG, WHT-YEL		AR
25	611-504	WIRE, PVC, 24 AWG, WHT-GRN		AR
26				
27	613-022	CABLE, SHIELDED & JACKETED, 26 AWG, WHT-BLU		AR
28	613-058	CABLE, SHIELDED & JACKETED, 26 AWG, WHT-VIO		AR
29				
30	615-026	WIRE, SOLID, UNINSUL, 22 AWG		AR

NOTE: ▽1 "CLEAN AREAS ON ITEM 2 WITH ACETONE PRIOR TO APPLYING ITEM 13."

2. CABLE LENGTH TO BE 25 FT MIN LENGTH.

4010284-03 MULTI-POINT SEARCH-TO-CUE ASSEMBLY REV. D
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
1	4050892-01	ELECTRONICS ASSEMBLY		1	1	-
2	4050892-03	ELECTRONICS ASSEMBLY				1
3	4050894-01	CABLE ASSEMBLY ATR-100		1	1	1
4						
5						
6	4150382-02	BASE, MULTI POINT SEARCH TO CUE		1	1	1
7	4170348-01	INSULATOR, BASE		1	1	1
8	4170349-01	INSULATOR, CONNECTOR		1	1	1
9	470-009	SCREW, SOC HD, 4-40 X.312		6	6	6
10	501-008	WASHER, FLAT, #4		2	2	2
11	250-188	BUMPER		4	4	4
12	4890414-01	MANUAL		1	1	1
13						
14	502-002	WASHER, LOCK, #4		4	4	4
15						
16	6000035-01	LABEL, IDENTIFICATION		1	1	1
17						
18	041-569	RESISTOR COMP. 300 OHM 1/4W, ± 5%		-	-	1

4050892-03 MULTI-POINT SEARCH-TO-CUE ELECTRONICS ASSEMBLY
NEXT HIGHER ASSEMBLY 4010284 REV. E

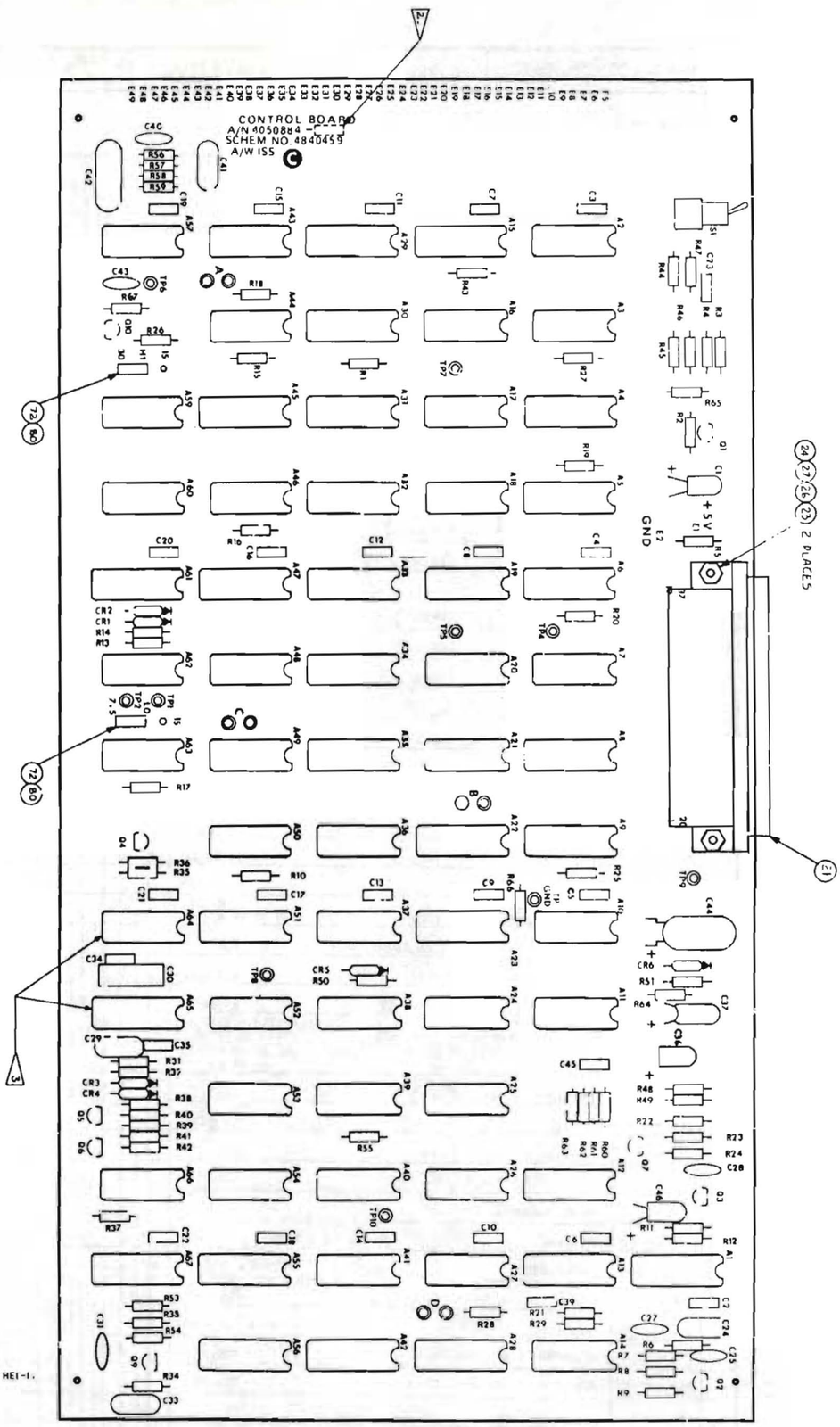
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
~~1~~	~~4050883-01~~	~~PWA, DISPLAY~~		~~1~~	~~1~~	~~—~~
~~2~~	~~4050884-02~~	~~PWA, COMPUTING AND CONTROL~~		~~1~~	~~1~~	~~—~~
3	4050883-02	PWA, DISPLAY				1
4	4050884-04	PWA, COMPUTING CONTROL				1
5	4150383-02	PANEL, MULTI POINT SEARCH TO CUE		1	1	1
6						
7						
8	473-324	SCREW, XREC, 4-40 X.25, SEM		2	2	2
9						
10	280-348	SLEEVE, HEX THREADED, 4X40X.375		3	6	6
11	302-395	STRAP CABLE				1
12		WIRE INSULATED				A/R
~~13~~	~~616-572~~	~~CABLE, RIBBON~~		~~A/R~~	~~A/R~~	~~—~~
~~14~~	~~619-200~~	~~WIRE, STRANDED #14 GA. BLK~~		~~A/R~~		
~~15~~	~~619-202~~	~~WIRE, STRANDED #14 GA. RED~~		~~A/R~~		
~~16~~	~~4730057-01~~	~~CABLE, PWA INTERCONNECT~~		~~2~~	~~2~~	~~—~~

4050884-04 MULTI-POINT SEARCH-TO-CUE COMPUTING AND CONTROL PWA
NEXT HIGHER ASSEMBLY 4050892 REV. D

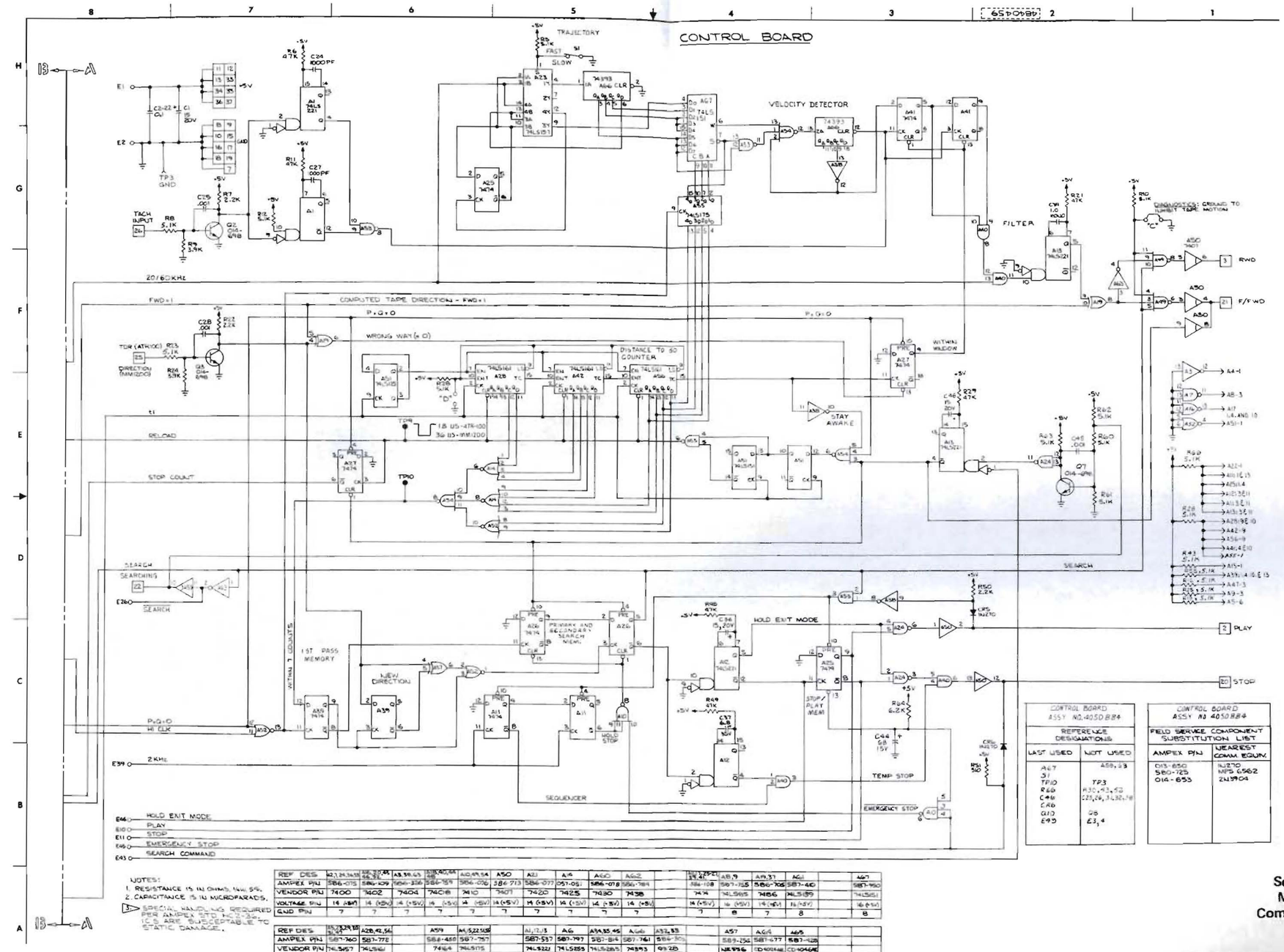
ITEM NO	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04
1								
2								
3	4840459		SCHEMATIC		(-)	C	C	D
4								
5	030-057		CAPACITOR, CER, .01	C31, 40,43	3	3	3	3
6	034-177		CAPACITOR MICA, 100pF	C29,	2	2	2	1
7	034-950		CAPACITOR MICA, 1000pF, DM15	C24,27	2	2	2	2
8	034-215		CAPACITOR, MICA, 10pF	C33				1
9	037-893		CAPACITOR TANT, 15uF, 20V	C1,36,46	3	3	3	3
10								
11	035-853		CAPACITOR MYLAR, .056uF, 5%	C30	1	1	1	1
12	064-062		CAPACITOR CER, .1uF, 100V, 20%	C2-22	21	21	21	21
13								
14	064-149		CAPACITOR MONO, 1uF	C34,35, 39	3	3	3	3
15	064-152		CAPACITOR, CER, .001uF	C23,25, ,28,45	4	4	4	4
16	037-957		CAPACITOR, TANT., 68uF, 15V	C44	1	1	1	1
17	037-931		CAPACITOR, TANT., 6.8 uF, 35V	C37	1	1	1	1
18	034-386		CAPACITOR, MICA, 910pF	C42	1	1	1	1
19								
20	034-965		CAPACITOR, MICA, 250pF	C41	1	1	1	1
21	4640023-01		CONNECTOR 37 PIN	P1			1	1
22	~~140-165~~		CONNECTOR, 37 PIN	P1	1	1		
23	496-004		NUT, KEP 4-40	REF:P1	2	2	2	2
24	471-062		SCREW SEM 4-40 X .375	REF:P1	2	2	2	2
25	013-650		DIODE (IN270)	CR1-6	6	6	6	6
26	501-169		WASHER, FLAT #4	REF: P1	2	2	2	2
27	503-993		WASHER, NYLON #4		2	2	2	2
28	586-075		INTEGRATED CIRCUIT, (7400)	A2,7,24, 36,53	5	5	3	5
29	586-076		(7410)	A10,49, 54	3	3	3	3
30	586-077		(7420)	A21	1	1	1	1
31	586-078		(7430)	A60	1	1	1	1
32	586-108		(7474)	A11,17, 25-27,39,41	7	7	7	7
33	586-109		(7402)	A16,20,43, 46,52	5	5	5	5
34	586-303		(9328)	A32,33	2	2	2	2
35	586-326		INTEGRATED CIRCUIT (7404)	A3,38,63	3	3	3	3
36								
37	586-705		INTEGRATED CIRCUIT 7486	A19,37	2	2	2	2

AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO. 97739 | LIST OF MATERIALS | LM-4050884 SHEET 2 | REV D

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04
38	586-759	INTEGRATED CIRCUIT, (7408)	A18,40,44 48	4	4	4	4
39	586-784	INTEGRATED CIRCUIT (7438)	A62	1	1	1	1
40							
41	587-051	INTEGRATED CIRCUIT (7425)	A14	1	1	1	1
42	587-410	(74LS139)	A61	1	1	1	1
43	587-677	INTEGRATED CIRCUIT (CD4024AE) 3	A64	1	1	1	1
44							
45	587-537	INTEGRATED CIRCUIT (74LS221)	A1,12,13	3	3	3	3
46							
47	587-757	INTEGRATED CIRCUIT (74LS175)	A4,15,22, 51,55	5	5	5	5
48	587-760	(74LS157)	A5,23,29, 30,31,47	6	6	6	6
49	537-772	(74LS161)	A28,42,56	3	3	3	3
50	587-797	(74LS253)	A6	1	1	1	1
51	586-450	INTEGRATED CIRCUIT (74164)	A59	1	1	1	1
52							
53	587-761	INTEGRATED CIRCUIT (74393N)	A66	1	1	1	1
54	587-428	INTEGRATED CIRCUIT, (CD4046) 3	A65	1	1	1	1
55	589-254	INTEGRATED CIRCUIT, (NE556)	A57	1	1	1	1
56	041-504	RESISTOR, COMP, 510, 1/4W 5%	R51	1	1	1	1
57	041-496	RESISTOR, COMP, 10, 1/4W, 5%	R38	1	1	1	1
58	041-394	RESISTOR, COMP, 100K, 1/4W, 5%	R32	1	1	1	1
59	041-408	10K	R36,37	2	2	2	2
60	041-410	1K	R27,31,34	3	3	3	3
61	041-411	RESISTOR, COMP 47K, 1/4W, 5%	R11,6,21, 29,48,49	6	6	6	6
62				2	2	2	2
63	041-414	RESISTOR, COMP, 2.2K, 1/4W, 5%	R7,22, 39,40,41,42,50	7	7	7	7
64	014-653	TRANSISTOR (2N3904)	Q9				1
65	041-503	RESISTOR, COMP, 270 OHM, 1/4W, 5%	R33,44-47	5	5	5	5
66	041-511	3.9K 1/4W, 5%	R9,24	2	2	2	2
67	041-561	RESISTOR, COMP, 5.1K 1/4W, 5%	R12,R1,2,3,4,5,10,13, 14,15,16,17,18,19	32	32	32	32
		20,25,26 67,28 8, 23	35 53,54,43,66, 55,60,61,62, 63,65				
68	586-713	INTEGRATED CIRCUIT, (7407)	A50			1	1
69	587-755	INTEGRATED CIRCUIT, (74LS85)	A8,9	2	2	2	2
70	587-950	INTEGRATED CIRCUIT, (74LS151)	A67	1	1	1	1
71	587-814	INTEGRATED CIRCUIT, (74LS283)	A34,35,45	3	3	3	3
72	602-044	PLUG, SHORTING		2	2	2	2
73	173-620	TERMINAL PAIRS A,B,C,D AND	TP1-10	18	18	18	18
74	014-698	TRANSISTOR (2N3565)	Q1-4,6,7,10	4	8	8	7
75	014-652	TRANSISTOR (2N3906)	Q5		1	1	1
76	014-653	TRANSISTOR,	Q1-4,6,7,9,10	8	-	-	-
77	041-406	RESISTOR, COMP, 22K, 1W, 5%	R56,58	2	2	2	2
78	041-483	RESISTOR, COMP, 27K, 1W, 5%	R57,59	2	2	2	2
79	119-488	SWITCH, TOGGLE	S1	1	1	1	1
80	143-981	JACK, P.C., CLOSED ENTRY		6	6	6	6
81	041-538	RESISTOR, COMP., 6.2K, 1W, 5%	R64	1	1	1	1



Assembly No. 4050884. Multi-Point Search-to-Cue Computing and Control PWA



CONTROL BOARD ASSY NO. 4050884	
REFERENCE DESIGNATIONS	
LAST USED	NOT USED
A67	A58, 63
S1	
TP10	TP3
R69	R30, 43, 53
C46	C25, 26, 31, 32, 48
CR6	
Q13	Q8
E49	E3, 4

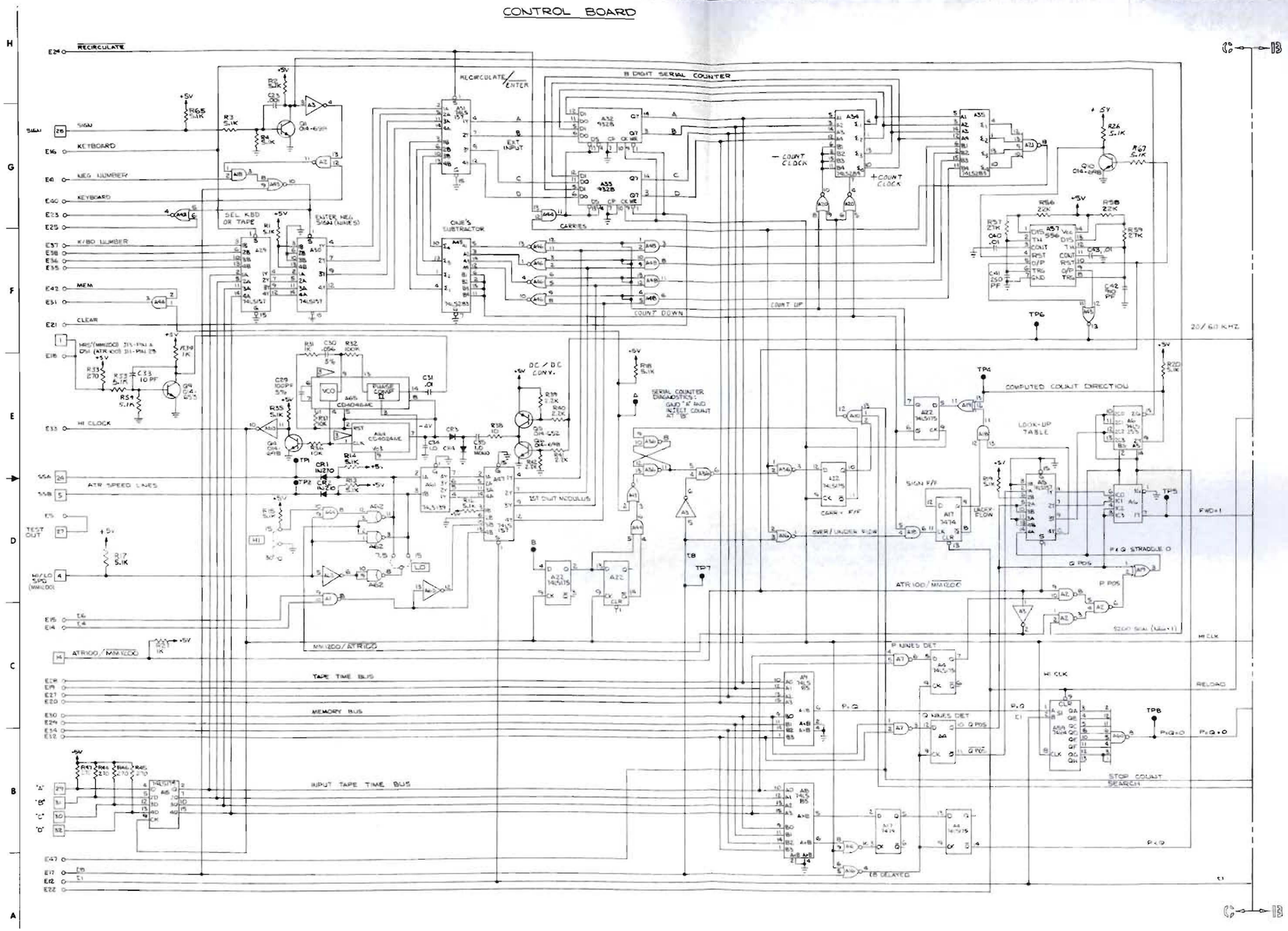
CONTROL BOARD ASSY NO. 4050884	
FIELD SERVICE COMPONENT SUBSTITUTION LIST	
AMPEX P/N	NEAREST COMM. EQUIV.
013-650	IN270
580-725	MPS 6562
014-653	2N3904

NOTES:
1. RESISTANCE IS IN OHMS, 1/4W, 5%.
2. CAPACITANCE IS IN MICROFARADS.
3. SPECIAL HANDLING REQUIRED PER AMPEX STD MC-2-34. IC'S ARE SUSCEPTABLE TO STATIC DAMAGE.

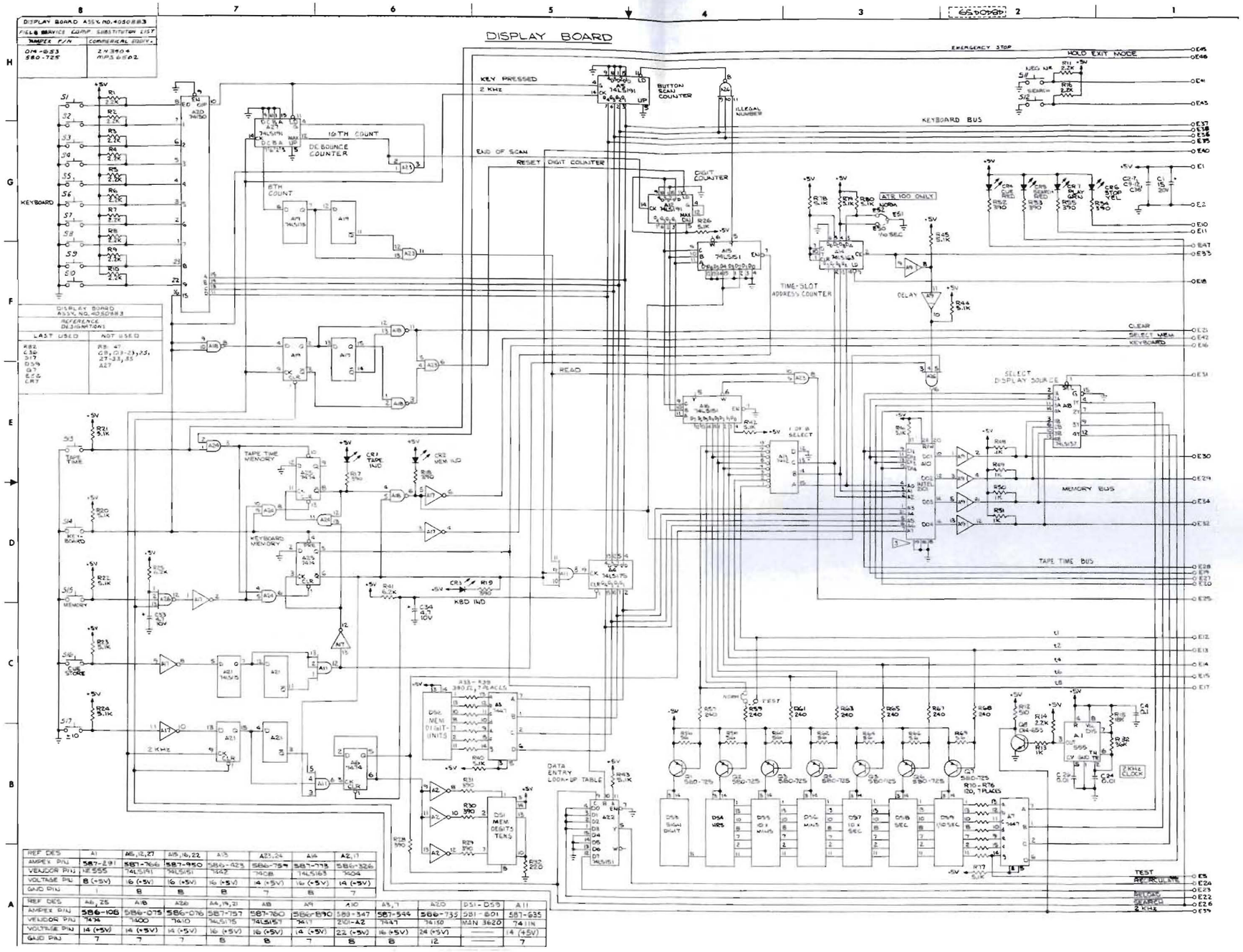
REF DES	A2,13,24,36,38	A28,42,56	A3,39,43	A5,6,60,64	A10,49,54	A50	A51	A54	A60	A62		A7,22,52	A8,9	A19,31	A61		A67
AMPEX P/N	586-075	586-109	586-326	586-159	586-076	586-713	586-077	051-051	586-078	586-784		586-108	587-155	586-705	587-140		587-950
VENDOR P/N	7400	7402	7404	7408	7410	7407	7420	7425	7430	7438		7474	74LS195	7486	74LS139		74LS151
VOLTAGE P/N	14 (+5V)	14 (+5V)	14 (+5V)	14 (+5V)	14 (+5V)	14 (+5V)	14 (+5V)	14 (+5V)	14 (+5V)	14 (+5V)		14 (+5V)	16 (+5V)	14 (+5V)	16 (+5V)		16 (+5V)
GND P/N	7	7	7	7	7	7	7	7	7	7		7	8	7	8		8

REF DES	A5,32,33,40	A28,42,56		A59	A4,5,22,58		A1,12,13	A6	A9,35,45	A46	A53,55		A57	A64	A65	
AMPEX P/N	587-760	587-772		586-460	587-757		587-537	587-797	587-814	587-761	586-305		589-256	587-477	587-928	
VENDOR P/N	74LS157	74LS86		7416	74LS175		74LS221	74LS255	74LS283	74393	9322		NE556	CD4044	CD4046	
VOLTAGE P/N	16 (+5V)	16 (+5V)		16 (+5V)	16 (+5V)		16 (+5V)	16 (+5V)	16 (+5V)	14 (+5V)	16 (+5V)		14 (+5V)	14 (+5V)	16 (+5V)	
GND P/N	8	8		8	8		8	8	8	7	8		7	7	8	

Schematic No. 4840459D.
Multi-Point Search-to-Cue Computing and Control PWA (Sheet 1 of 3)



Schematic No. 4840459D.
Multi-Point Search-to-Cue
Computing and Control PWA
(Sheet 2 of 3)



REF DES	A1	A6,12,27	A15,16,22	A13	A23,24	A18	A2,17
AMPEX P/N	587-291	587-766	587-950	586-425	586-759	587-773	586-326
VENDOR P/N	NE 555	74LS191	74LS161	1142	74108	74LS163	9304
VOLTAGE PIN	8 (+5V)	16 (+5V)	16 (+5V)	16 (+5V)	14 (+5V)	16 (+5V)	14 (+5V)
GND PIN	1	8	8	8	7	8	7

REF DES	A5, 25	A19	A20	A4, 19, 21	A8	A9	A10	A3, 7	A26	DS1 - DS9	A11
AMPEX P/N	586-108	586-075	586-076	587-757	587-760	586-890	583-347	587-544	586-735	581-601	587-635
VENDOR P/N	9334	1400	7410	74LS175	74LS151	7411	2101-A2	7447	74150	MAN 3620	7411N
VOLTAGE PIN	14 (+5V)	14 (+5V)	14 (+5V)	16 (+5V)	16 (+5V)	14 (+5V)	22 (+5V)	16 (+5V)	24 (+5V)	——	14 (+5V)
GND PIN	7	7	7	8	8	7	8	8	12	——	7

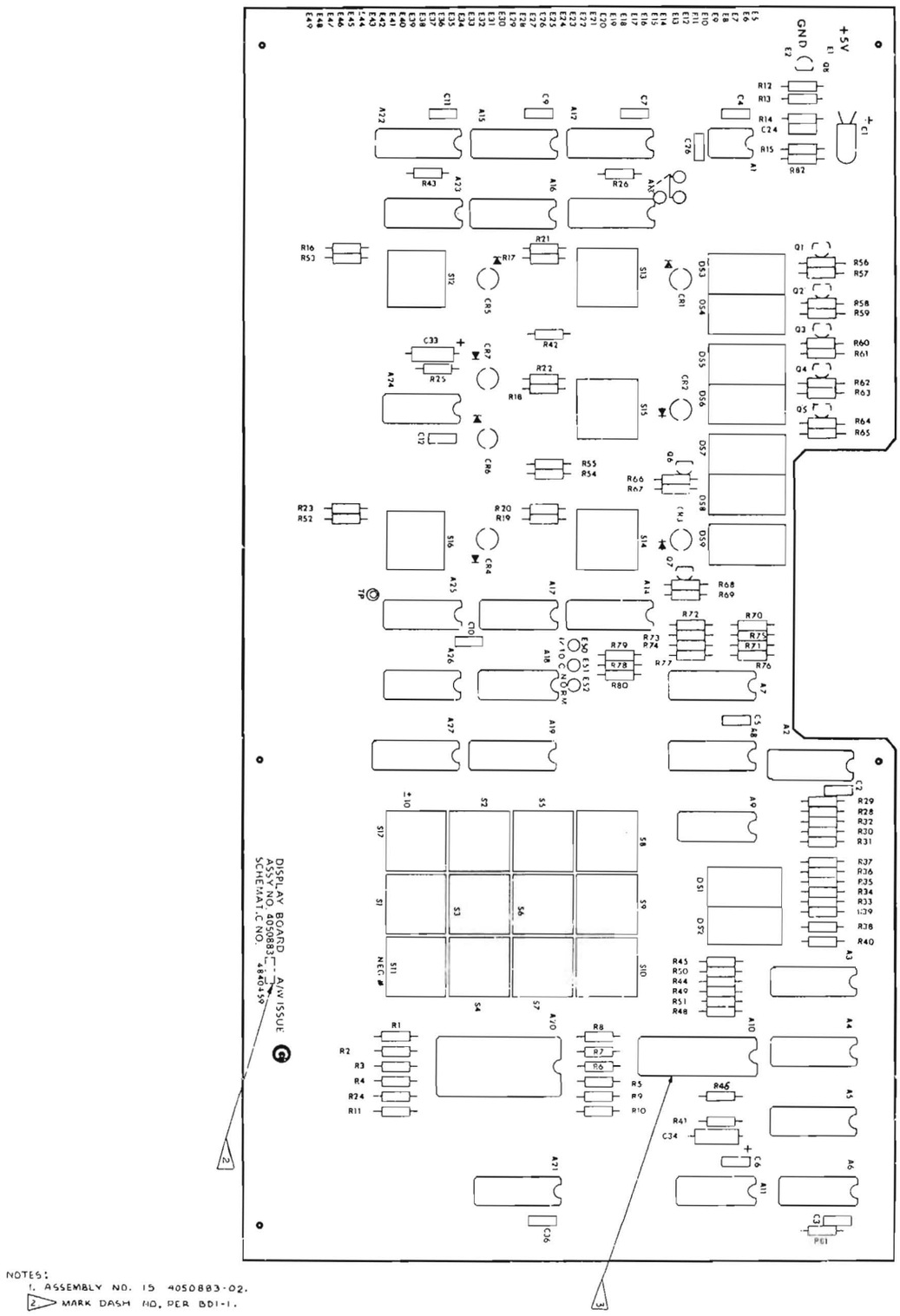
AMPEX 4890407-02

Schematic No. 4840459D.
Multi-Point Search-to-Cue
Computing and Control PWA
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1					
2					
3	4840459	SCHEMATIC		C	C
4					
5					
6					
7					
8	037-472	CAPACITOR, TANT, 4.7uF, 10V, 10%	C33,34	2	2
9	037-893	TANT, 15uF, 20V	C1 △4	1	1
10	064-062	CER, .1uF, 100V, 20%	C2,3,4,5,6,7, 9,10,11,12,36	11	11
11	064-298	CAPACITOR, CER,.01uF, 100V, 20%	C24,26	2	2
12					
13					
14					
15	280-130	SPACER, TRANSISTOR, MTG.	REF CR1-7	7	7
16	581-399	DIODE, LIGHT EMITTING (YEL) (HP5082-4584)	CR1-3,6	4	4
17	581-400	DIODE, LIGHT EMITTING (RED) (HP5082-4684)	CR4,5	2	2
18	581-401	DIODE, LIGHT EMITTING (GRN) (HP5082-4984)	CR7	1	1
19	581-357	DISPLAY, NUMERIC (HP 5082-7730)	DS1-9	9	9
20	582-115	SOCKET, DISPLAY	REF DS1-9	9	9
21					
22					
23	586-076	INTEGRATED CIRCUIT, (7410)	A26	1	1
24	586-075	(7400)	A18	1	1
25	586-108	(7474)	A6,25	2	2
26	586-326	(7404)	A2,17	2	2
27	586-423	(7442)	A13	1	1
28	586-735	(74150)	A20	1	1
29	586-759	(7408)	A23,24	2	2
30	586-890	(7417)	A9		1
31	589-347	(2101-A2) △3	A10	1	1
32	587-635	(7411N)	A11		1
33	587-544	(7447)	A3,7	2	2
34	587-757	(74LS175)	A4,19,21	3	3
35	587-760	(74LS157)	A8		1
36	587-766	(74LS191)	A5,12,27	3	3
37	587-773	INTEGRATED CIRCUIT, (74LS163)	A14	1	1

AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT. NO. 92739 | LIST OF MATERIALS | LM-4050883 SHEET 2 | REV D

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
38	587-950	INTEGRATED CIRCUIT, (74LS151)	A15,16,22	3	3
39	587-291	INTEGRATED CIRCUIT, (NE555)	A1	1	1
40					
41	041-751	RESISTOR, COMP., 36K, 1/4W, 5%	R82	1	1
42	041-396	RESISTOR, COMP., 220 OHM, 1/4W, 5%	R32	1	1
43					
44	041-414	RESISTOR, COMP.,2.2K, 1/4W, 5%	R1-11,14,16	13	13
45	041-417	RESISTOR, COMP., 390 OHM, 1/4W, 5%	R17-19,28-31, 33-39,52-55	18	18
46					
47	041-502	RESISTOR, COMP., 240 OHM, 1/4W, 5%	R57,59,61,63, 65,67,68	7	7
48	041-538	6.2K, 1/4W, 5%	R25,41	2	2
49	041-559	120 OHM, 1/4W, 5%	R70-76	7	7
50	041-561	5.1K, 1/4W, 5%	R20-24,26,40,42 43-46,77-81	17	17
51	041-733	RESISTOR, COMP., 56 OHM, 1/4W, 5%	R56,58,60,62, 64,66,69	7	7
52	041-410	RESISTOR, COMP., 1K, 1/4W, 5%	R13,48,49,50,51	5	5
53	041-504	RESISTOR, COMP., 510,1/4W, 5%	R12	1	1
54	041-436	RESISTOR, COMP., 18K,1/4W, 5%	R15	1	1
55	119-541	SWITCH, SPST N/O	(0) S1	1	1
56	119-531		(1) S2	1	1
57	119-533		(2) S3	1	1
58	119-534		(3) S4	1	1
59	119-535		(4) S5	1	1
60	119-536		(5) S6	1	1
61	119-537		(6) S7	1	1
62	119-538		(7) S8	1	1
63	119-539		(8) S9	1	1
64	119-540		(9) S10	1	1
65	119-542		(-) S11	1	1
66	119-552		(0/10) S17	1	1
67	119-532	SWITCH	S12-S16	5	5
68					
69	121-298	FRAME, PUSHBUTTON MOUNTING	REF: S1-11,S17	1	1
70					
71	014-653	TRANSISTOR (2N3904)	Q8	1	1
72	580-725	TRANSISTOR (HPS 6562)	Q1-Q7	7	7
73					
74					
75	602-044	PLUG, SHORTING	REF: E50,51,52	1	1
76	143-981	JACK, P.C., CLOSED ENTRY	E50,51,52	3	3
77					
78	611-486	WIRE, STRANDED #24 GA. WHT		A/R	A/R

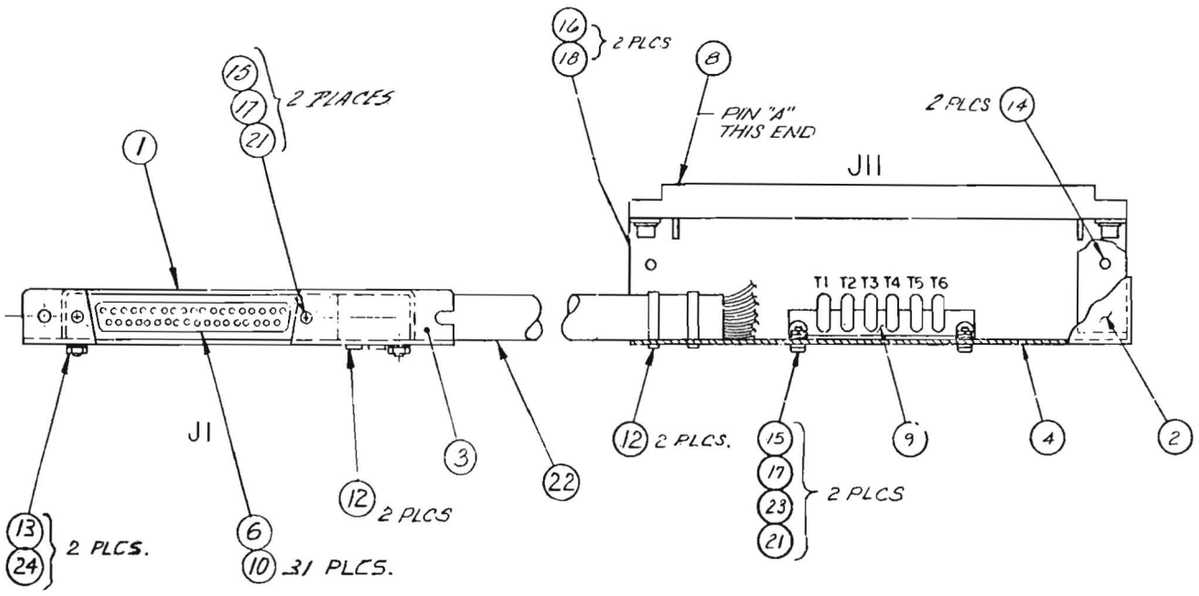


NOTES:
1. ASSEMBLY NO. IS 4050883-02.
2. MARK DASH NO. PER BDI-1.
3. STATIC SENSITIVE SPECIAL HANDLING REQUIRED PER HE1-1.

Assembly No. 4050883. Multi-Point Search-to-Cue Display PWA

4050894-01 MULTI-POINT SEARCH-TO-CUE CABLE ASSEMBLY REV. D
NEXT HIGHER ASSEMBLY 4010284

ITEM NO.	PART NUMBER	C	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4290993-01		COVER, HOOD		1
2	4290958-01		COVER, ACCESSORY CONNECTOR		1
3	4290994-01		HOOD, CONNECTOR		1
4	4260574-01		BRACKET, ACCESSORY CONNECTOR		1
5					
6	167-595		CONNECTOR, RECEP, RECT, 37 PIN	J1	1
7					
8	143-804		CONNECTOR, 56 PIN	J11	1
9	180-223		TERMINAL STRIP, 6 POSITION		1
10	167-596		CONNECTOR PART, CONTACT, SOCKET (ALTERNATE: 167-601)	1	31
11					
12	302-379		STRAP, CABLE		4
13	496-004		NUT KEP #4-40		2
14	476-998		SCREW, SELF TAPPING, 6-20 X .250 LG		2
15	472-113		SCREW, PAN HD, 2-56 X .250		4
16	470-008		SCREW, CAP, SOCKET, 4-40 X .250 LG		2
17	501-155		WASHER, FLAT, NO.2		4
18	502-002		WASHER, LOCK, #4		2
19					
20	600-130		SLEEVING, SHRINKABLE, CLEAR .093		A/R
21	492-007		NUT, HEX, 2-56		4
22	636-021		CABLE, 40 COND		A/R
23	502-001		WASHER, LOCK, NO. 2		2
24	501-008		WASHER, PLAIN #4		2
25	600-095		SLEEVING, SHRINKABLE, BLK		A/R
26	615-023		WIRE, BARE, 16 AWG		A/R
27	611-722		WIRE, INSULATED, 16 AWG, RED		A/R
28	611-723		WIRE, INSULATED, 16 AWG, BLK		A/R
29	611-252		WIRE, INSULATED, 22 AWG, BLK		A/R
	NOTES:				
	1		167-596 IS FACTORY STANDARD. FOR FIELD SERVICE REPLACEMENT		
			USE ALTERNATE P/N 167-601.		



Assembly No. 4050894. Multi-Point Search-to-Cue Cable

4020391-10 SYNC LOCK KIT (w/o REPRO AMP) REV. S
4020391-11 SYNC LOCK KIT (w/REPRO AMP)
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER									
				07	08	09	10	11					
1	4050750-01	SYNC LOCK ASSY		-	-	-	-	-					
2	4050750-02	SYNC LOCK ASSY		-	-	-	-	-					
3	~~4050750-03~~	~~SYNC LOCK ASSY~~											
4	4050750-04	SYNC LOCK ASSY		1	-	1	1	-					
5	4050750-05	SYNC LOCK ASSY		-	1	-	-	1					
6	4050442-01	CABLE ASSY, POWER		1	1		-	-					
7	4050726-01	CABLE ASSY, SYNC INTERCONNECT		2	2		2	2					
8	4050726-02	CABLE ASSY, SYNC INTERCONNECT				2	-	-					
9	4050727-01	CABLE ASSY, SERVO INTERCONNECT		1	1		-	-					
10	4050867-01	CABLE ASSY, SYNC INTERCONNECT ATR100					1	1					
11	4730070-01	CABLE ASSY, SYNC LOCK				1	-	-					
12	4050866-01	CABLE ASSY, SYNC PILOT TONE INTERCONNECT ATR100					-	1					
13	4500303-01	JUMPER BOARD FOR PILOT TONE					-	1					
14	4890320	INSTRUCTION MANUAL		1	1	1	1	1					
15	4890333	INSTRUCTION SHEET				1	-	-					
16	4890412	INSTRUCTION SHEET		1	1	1	1	1					
17	472-889	SCREW, OVAL HD, XREC 12-24 X 3/4LG			2	2	2	2					
18	503-087	WASHER, NYLON #12, WHITE			2	2	2	2					
19													
20		WIRE, #22 AWG		-	-	A/R	-	-					

4050750-04 SYNC LOCK ASSEMBLY (w/o REPRO AMP) REV. J
4050750-05 SYNC LOCK ASSEMBLY (w/REPRO AMP)
NEXT HIGHER ASSEMBLY 4020391

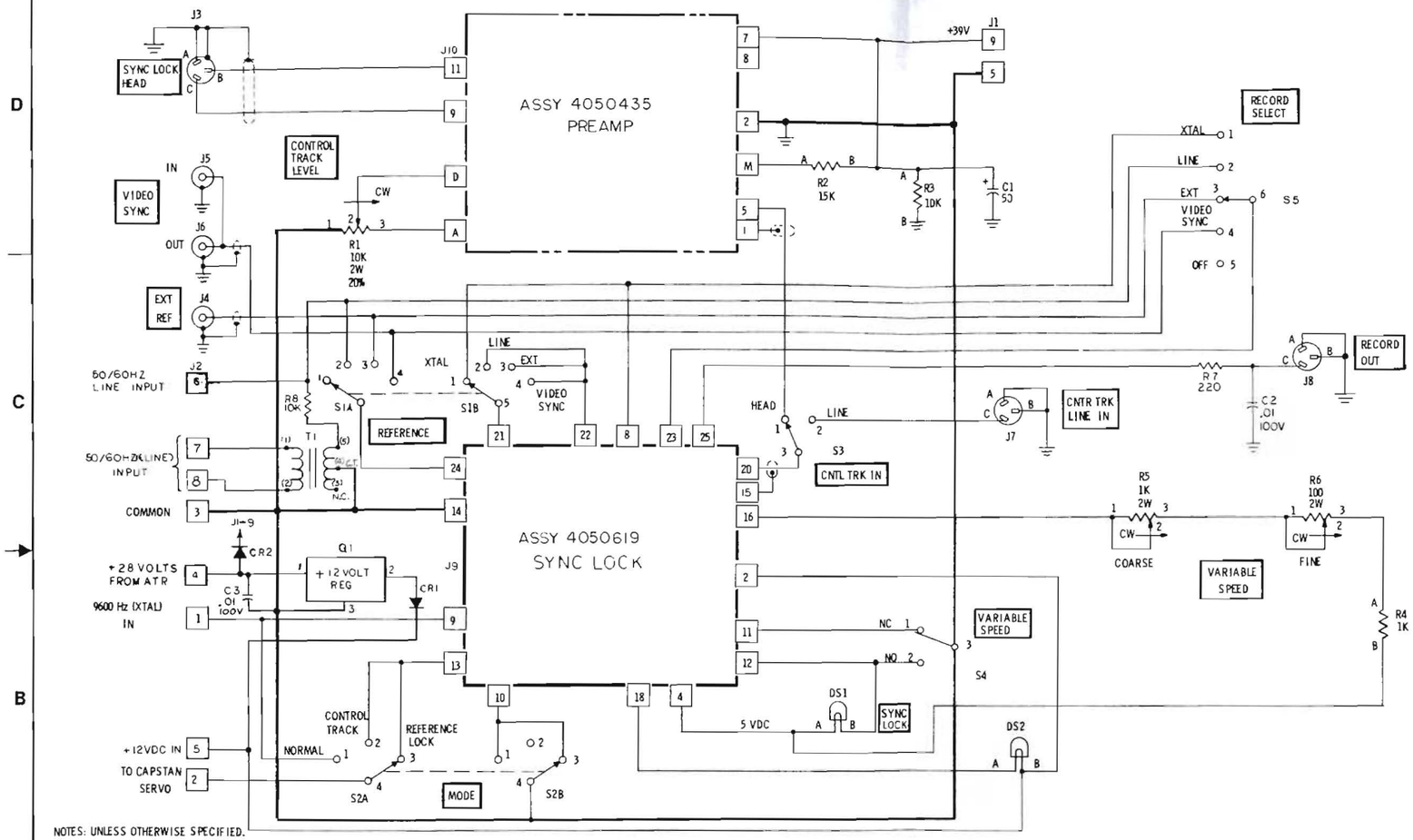
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER				
				-01	-02	-03	-04	-05
1	4020270-01	P.W.ASSY, REPRODUCE EQUALIZER						1
2	4030269-03	CONNECTOR ASSY, 12 CONTACTS	J10	1	1	1	1	1
3								
4	4050435-13	P.W.ASSY, REPRODUCE AMPLIFIER			1			1
5	4050619-01	P.W.ASSY, SYNC LOCK		1	1	1	1	1
6								
7	4110278-02	ESCUTCHEON, SWITCH MTG		1	1	1	1	1
8	4290910-03	PANEL, SIDE		1	1	1	1	1
9	4260521-01	BRACKET, CONNECTOR MTG		1	1	1	1	1
10	4290908-04	PANEL, CONNECTOR		1	1	1	1	1
11	4290908-03	PANEL, CONNECTOR		1	1	1	-	-
12	4290909-01	COVER, TOP		1	1	1	1	1
13	4290910-02	PANEL, SIDE		1	1	1	-	-
14	4290911-02	COVER, REAR		1	1	1	1	1
15	4290912-02	CHASSIS, REPRO		1	1	1	1	1
16	4290913-02	PANEL, FRONT		1	1	1	1	1
17	4290914-03	CHASSIS, SYNC LOCK		1	1	1	1	1
18								
19	4320135-02	RETAINING RING, ESCUTCHEON		1	1	1	1	1
20	4520156-01	POT, DUAL CONCENTRIC	R5,6	1	1	1	1	1
21	587-440	+12V REGULATOR	Q1	1	1	1	1	1
22	4620084-01	SWITCH, ROTARY 2 POL-5 POS.	S1,2	2	2	2	2	2
23	4620085-01	SWITCH, ROTARY 1P 6T	S5	1	1	1	1	1
24	560-466	TRANSFORMER	T1	1	1	1	1	1
25	6000008-20	KNOB, SKIRTED		4	4	4	4	4
26	6000033-30	KNOB, CONCENTRIC		1	1	1	1	1
27	6000036-41	LENS, 5/8 DIA BUTTON		1	1	1	1	1
28	6000035-01	LABEL, I.D. & SERIAL NO.		1	1	1	1	1
29								
30	030-057	CAPACITOR, CER, .01 uF, 100V, 20%	C2,3				2	2
31	030-057	CAPACITOR, CER, .01 uF, 100V, 20%	C2	1	1	1	-	-
32	041-396	RESISTOR, COMP, 220 OHMS, 1/4W, 5%	R7	1	1	1	1	1
33	041-408	RESISTOR, COMP, 10K OHMS, 1/4W, 5%	R3	1	1	1	-	-
34	041-409	RESISTOR, COMP, 15K OHMS, 1/4W, 5%	R2	1	1	1	1	1
35	041-410	RESISTOR, COMP, 1K OHMS, 1/4W, 5%	R4	1	1	1	1	1
36	044-233	RESISTOR, VAR, 10K OHMS, 2W, 20%	R1	1	1	1	1	1
37	041-408	RESISTOR, COMP, 10K OHMS, 1/4W, 5%	R3,8				2	2

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92730	LIST OF MATERIALS	LM- 4050750 SHEET 2	REV J

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05
38	060-443	LIGHT INDICATOR, 14V RED LENS	DS2	1	1	1	1	1
39	060-483	LAMP 6V, 40 MA	DS1/S4	1	1	1	1	1
40	063-032	CAPACITOR, 50 uF, 50V	C1	1	1	1	1	1
41								
42	120-133	SWITCH, PUSHBUTTON, SPDT ILLUMINATED	S4	1	1	1	1	1
43	120-639	SWITCH, TOGGLE 1P 2T	S3	1	1	1	1	1
44								
45	143-008	CONNECTOR, RECP, 3 PINS	J3	1	1	1	1	1
46	143-804	CONNECTOR, VIKING 2VH, 28	J9	1	1	1	1	1
47	013-678	DIODE (1N4385)	CR1,2		1	1	2	2
48								
49	146-067	CONNECTOR, RECP, 1 SOC UHF	J4,5,6	3	3	3	3	3
50	146-998	CONNECTOR, AUDIO RECP, 3 SOC	J7	1	1	1	1	1
51	147-006	CONNECTOR, RECP 8 PIN	J2	1	1	1	1	1
52	147-014	CONNECTOR, RECP, 10 PINS	J1	1	1	1	1	1
53	147-999	CONNECTOR, AUDIO RECP, 3 PIN	J8	1	1	1	1	1
54								
55	180-021	TERMINAL STRIP, PLAIN, 3 TERMINAL	TB1	1	1	1	1	1
56	180-026	TERMINAL STRIP, 1 TERMINAL	TB2	1	1	1	-	-
57	180-026	TERMINAL STRIP, 1 TERMINAL	TB2,TB3				2	2
58								
59	310-105	CLIP, CARTRIDGE LAMP		1	1	1	1	1
60	310-106	CONNECTOR, INDICATOR		1	1	1	1	1
61								
62	432-136	SEAL, O-RING		1	1	1	1	1
63	471-061	SCREW, #4-40 X .312 LG, PAN HD, XREC		12	12	12	13	13
64	471-062	SCREW, #4-40 X .375 LG, PAN HD, XREC		4	4	4	4	4
65	471-063	SCREW #4-40 X .438 LG, PAN HD, XREC		4	4	4	4	4
66	471-067	SCPEW, #6-32 X .25 LG, PAN HD, XREC		5	5	5	7	7
67	471-326	SCREW, #4-40 X .25 LG, FLAT HD, XREC		4	4	4	4	4
68	471-328	SCREW, #4-40 X .375 LG, FLAT HD, XREC		4	4	4	4	4
69	~~472-889~~	~~SCREW, OVAL HEAD, XREC 12-24 X 3/4 LG~~			~~2~~	~~2~~		
70	476-998	SCREW, #6 X .25, SELF TAP, HEX WASHER HD		18	18	18	18	18
71	496-004	NUT, #4-40 KEP		26	26	26	27	27
72	496-005	NUT, #6-32 KEP		5	5	5	5	5
73	498-267	NUT, #4-40 PLAIN, WING		4	4	4	4	4
74	502-003	WASHER, SPRING #6				1	2	2
75	501-008	WASHER #4 PLAIN		8	8	8	8	8
76	501-204	WASHER, SHIM, .438 O.D., .250 I.D. X .015 THK		1	1	1	1	1
77	501-627	WASHER, PLAIN, .625 O.D., .375 I.D. X .02 THK		5	5	5	5	5
78	502-002	WASHER, LOCK SPLIT #4		2	2	2	2	2
79	~~503-087~~	~~WASHER, NYLON #12 WHITE~~			~~2~~	~~2~~		
80								
81	530-159	GUIDE, P.C.		6	6	6	4	4
82								

AMPEX	Ampex Corporation Redwood City, California	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 4050750 SHEET 3	REV J

ITEM NO.	PART NUMBER		DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05
83	600-036		TUBING, CLEAR		A/R	A/R	A/R	A/R	A/R
84	600-090		TUBING, SHRINK, BLK		A/R	A/R	A/R	A/R	A/R
85									
86	613-027		CABLE, COAX		A/R	A/R	A/R	A/R	A/R
87	613-040		CABLE, SHIELDED #26 AWG, W/GRN		A/R	A/R	A/R	A/R	A/R
88	613-054		CABLE, SHIELDED #26 AWG, W/ORN		A/R	A/R	A/R	A/R	A/R
89	615-002		WIRE, BARE #22 AWG		A/R	A/R	A/R	A/R	A/R
90	~~616-400~~		~~CABLE, TWISTED PAIR, SHIELDED~~		~~A/R~~	~~A/R~~	~~A/R~~	~~A/R~~	~~A/R~~
91	616-283		CABLE, TWISTED PAIR, SHLD					A/R	A/R
92									
93			WIRE, #20 AWG		A/R	A/R	A/R	A/R	A/R
94									
95									
96									
97									
98									
99									
100									
101									
102									
103									
104									
105									
106									
107									
108									
109									
110	4020151-04		P.W.ASSY, EXTENDER, PREAMP			REF			REF
111									
112	4050640-02		HARNESS ASSY		REF	REF	REF	REF	REF
113	4050695-01		P.W.ASSY, EXTENDER, SYNC LOCK		REF	REF	REF	REF	REF
114									
115									
116									
117	145-076		TERMINATION UHG 75 OHMS		REF	REF	REF	REF	REF
118									
119									
120									
121									
122	4840360		SCHEMATIC, SYNC LOCK		REF	REF	REF	REF	REF



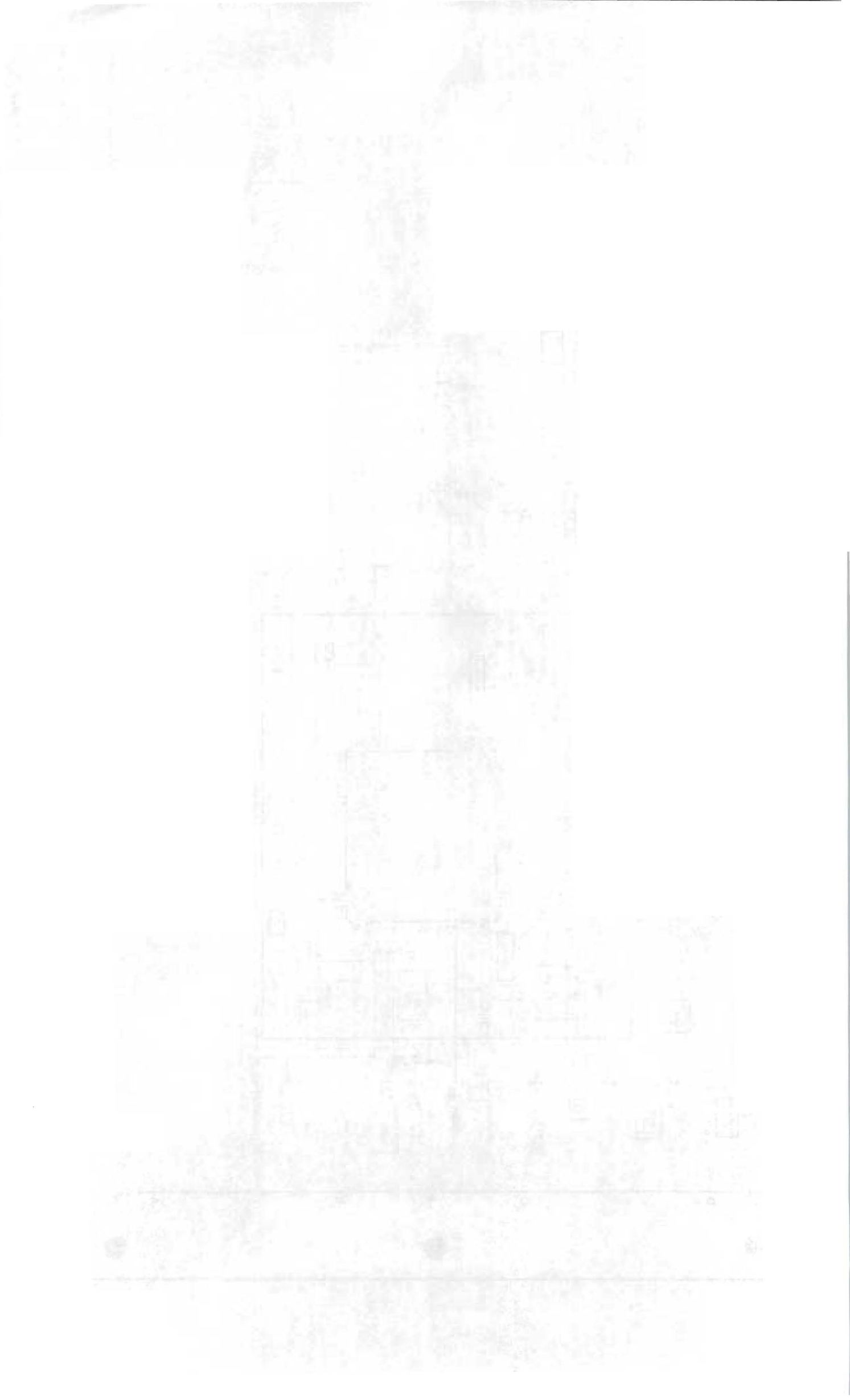
NOTES: UNLESS OTHERWISE SPECIFIED.

1. CAPACITANCE VALUES ARE IN MICROFARADS, 50V.
2. RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%.

TABLE I

ASSY NO.	SCHEMATIC ISSUE
4020391-01, -02, -03	ISSUE "A"
4020391-04, -05, -06	ISSUE "B"
4020391-07, -08, -09	ISSUE "C"
4050750-04, -05	ISSUE "D"

Schematic No. 4840360E.
Sync Lock

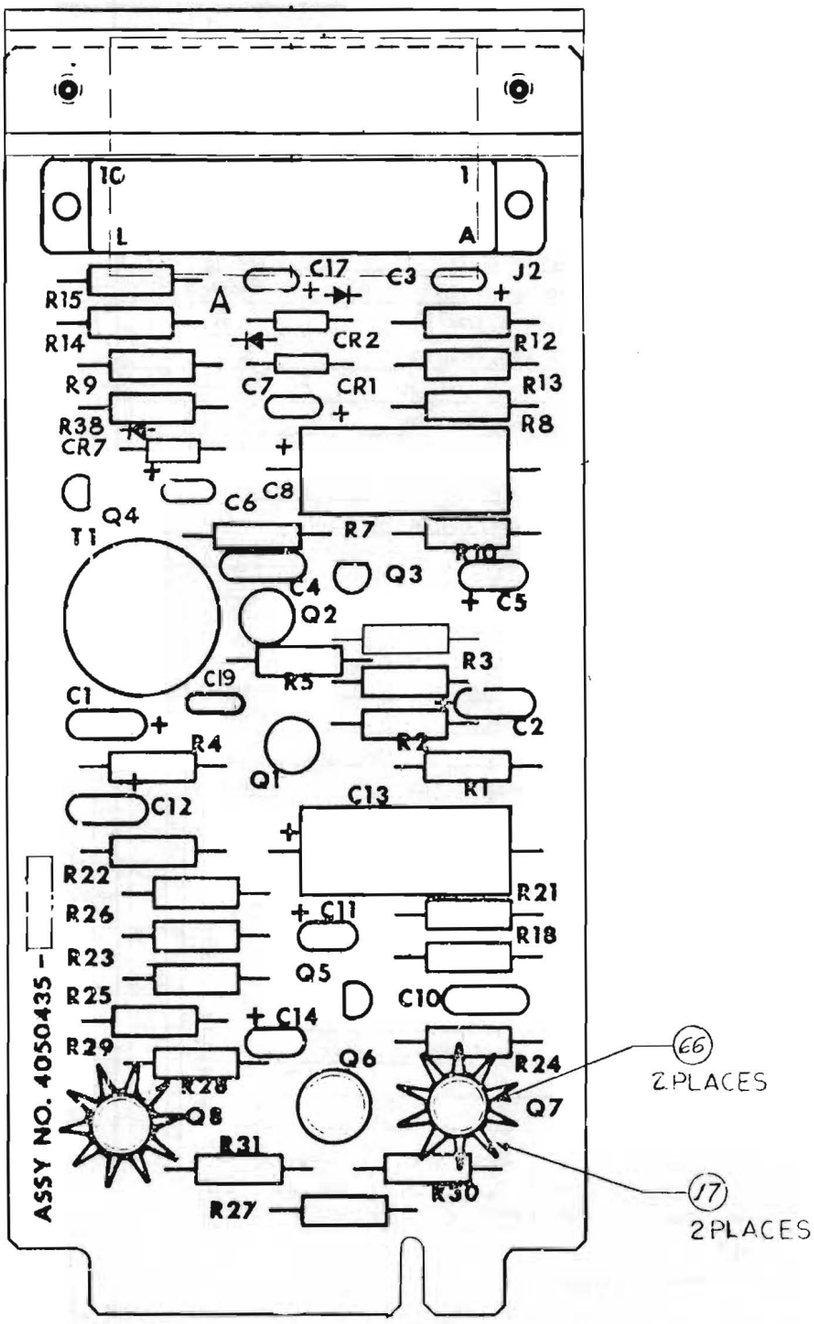


4050435-13 REPRODUCE AMPLIFIER PWA REV. AG
NEXT HIGHER ASSEMBLY 4050750

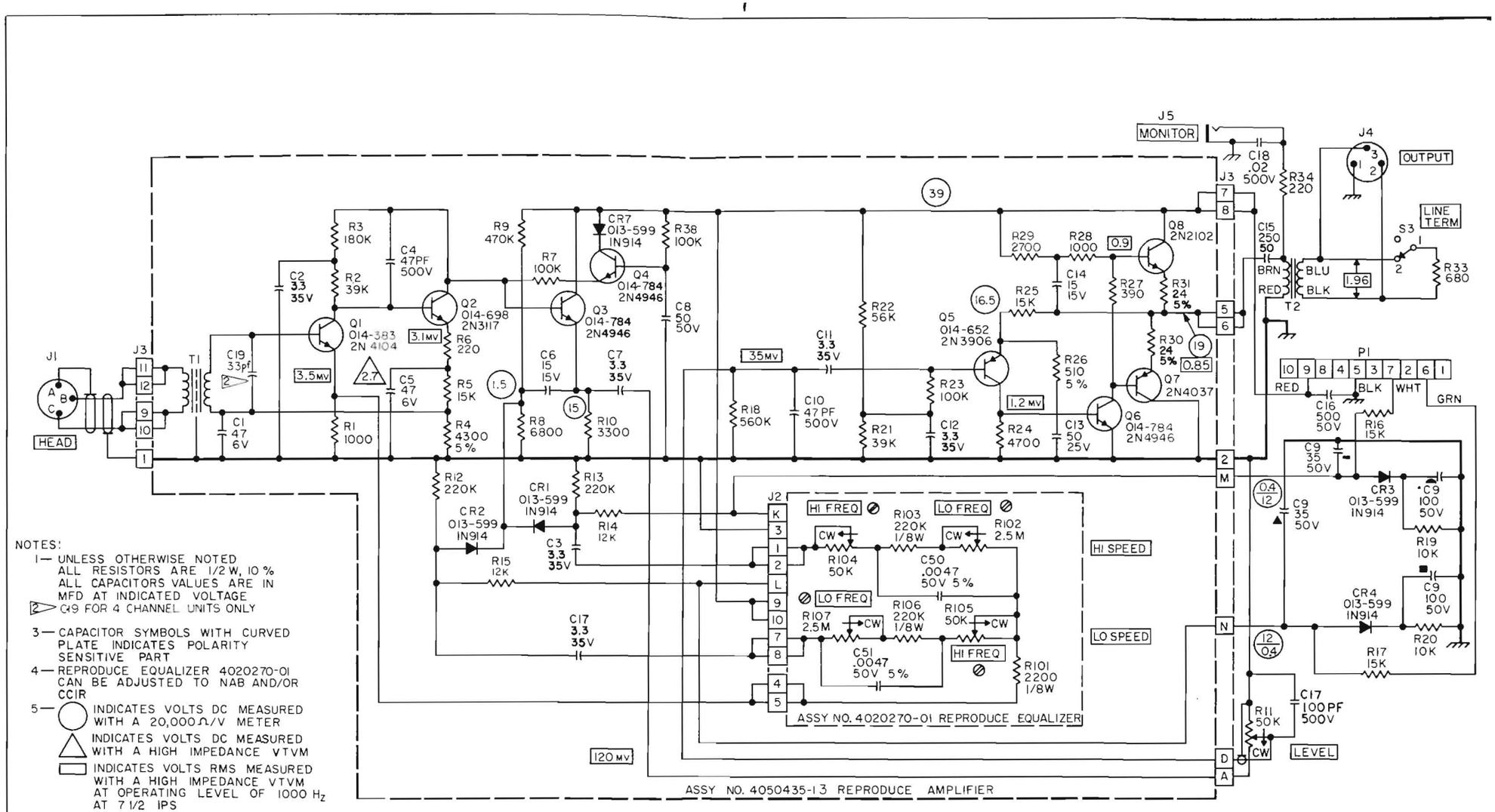
ITEM NO.	PART NUMBER	D	DESCRIPTION 4020402	MM1200 REF DESIG	QTY REQD PER DASH NUMBER -12	-13	-14	-15
1	4030270-02		CONNECTOR ASSY, 10 CONTACT	J2	1	1	1	1
2	4110271-01		LABEL, REPRODUCE MODULE		1	1	1	1
3	4170337-01		INSULATOR, REPRO BOARD		1	1	1	1
4	4330263-02		FRONT PLATE, REPRODUCE MODULE		1	1	1	1
5								
6								
7	4580044-01		TRANSFORMER, INPUT	T1				
8	~~4580199-01~~		~~TRANSFORMER, INPUT~~	~~T1~~	~~1~~	~~1~~	~~1~~	
9	4580068-01		TRANSFORMER, INPUT	T1	1	1	1	
10	~~225-353~~		~~TAPE, ADHESIVE, DBL SIDE, 1/2 WD X .031 THK~~		~~A/R~~	~~A/R~~	~~A/R~~	~~A/R~~
11								
12	013-599		DIODE (1N4531)	CR1, 2,7	3	3	3	3
13	014-329		TRANSISTOR, (2N2102)	Q8	1	1	1	1
14	~~014-383~~		~~TRANSISTOR (ALTERNATE 530-135)~~	~~Q1~~		~~1~~	~~1~~	~~1~~
15	014-652		TRANSISTOR, CD524 (2N3906)	Q5	1	1	1	1
16	014-698		TRANSISTOR, NPN, CD562 (2N3565)	Q2	1	1	1	1
17	014-706		HEATSINK, TRANSISTOR	REF Q7,8	2	2	2	2
18	014-723		TRANSISTOR, (2N4037)	Q7	1	1	1	1
19	014-784		TRANSISTOR, CD562 (2N4946)	Q3,4, 6	3	3	3	3
20								
21	031-187		CAPACITOR, ELEC. (50 MFD, 50V)	C8	1	1	1	1
22	031-190		CAPACITOR, ELEC. (50 MFD, 25V)	C13	1	1	1	1
23								
24	034-181		CAPACITOR, MICA (47 PFD, 500V, 5%)	C4,10	2	2	2	2
25	034-962		CAPACITOR, MICA, 500V, 33 pF, 5%	C19			1	-
26	087-388		SILICON COMPOUND	REF: Q7,8	A/R	A/R	A/R	A/R
27								
28	037-446		CAPACITOR, TANT, (15 MFD, 15V, 20%)	C6,14	2	2	2	2
29	037-494		CAPACITOR, TANT, (47 MFD, 6V, 20%)	C1,5	2	2	2	2
30	037-654		CAPACITOR, TANT, (3.3MFD, 35V, 20%)	C2,3,7, 11,12,17	6	6	6	6
31								
32								
33	041-012		RESISTOR, COMP, 4.3K OHMS, 1/2W, 5%	R4	1	1	1	
34	041-040		RESISTOR, 220 OHMS, 1/2W, 10%	R6	1	1	1	1
35	041-043		RESISTOR, 390 OHMS, 1/2W, 10%	R27	1	1	1	1
36	041-048		RESISTOR, COMP, 1K OHMS, 1/2W, 10%	R28 R26	1	1	1	1
37	041-048		RESISTOR, COMP, 1K OHMS, 1/2W, 10%	R1		1		

AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO. 07736 | LIST OF MATERIALS | LM- 4050435 SHEET 2 | REV AG

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -12	-13	-14	-15
38							
39							
40	041-053	RESISTOR, 2.7K OHMS, 1/2W, 10%	R29	1	1	1	1
41	041-054	RESISTOR, COMP, 3.3K OHMS, 1/2W, 10%	R10	1	1	1	1
42	041-056	RESISTOR, COMP, 4.7K OHMS, 1/2W, 10%	R24	1	1	1	1
43	041-057	RESISTOR, 5.6K OHMS, 1/2W, 10%	R4				1
44	041-058	RESISTOR, COMP, 6.8K OHMS, 1/2W, 10%	R8	1	1	1	1
45	041-061	RESISTOR, COMP, 12K OHMS, 1/2W,	R14,15		2	2	
			R25	1	1	1	1
46	041-062	RESISTOR, COMP, 15K OHMS, 1/2W, 10%	R5	1	1	1	
47	041-067	RESISTOR, COMP, 39K OHMS, 1/2W, 10%	R2,21	2	2	2	2
48	041-069	RESISTOR, COMP, 56K OHMS, 1/2W, 10%	R22	1	1	1	1
49	041-072	RESISTOR, COMP, 100K OHMS, 1/2W, 10%	R7,23,38	3	3	3	3
			R3				1
50	041-075	RESISTOR, COMP, 180K OHMS, 1/2W, 10%	R3	1	1	1	
51	041-076	RESISTOR, COMP, 220K OHMS, 1/2W, 10%	R12,13	2	2	2	2
52	041-080	RESISTOR, COMP, 470K OHMS, 1/2W, 10%	R9	1	1		1
53	041-081	RESISTOR, COMP, 560K OHMS, 1/2W, 10%	R18	1	1		1
54							
55							
			R1				1
56	041-404	RESISTOR, COMP, 510 OHMS, 1/2W, 5%	R26	1	1	1	
57	041-529	RESISTOR, COMP, 20K OHMS, 1/2W, 5%	R5				1
58	041-533	RESISTOR, COMP, 24 OHMS, 1/2W, 5%	R30,31	2	2	2	2
59							
60							
61	041-066	RESISTOR, COMP, 33K OHMS, 1/2W, 10%	R14,15	2			2
62	049-517	RESISTOR, COMP, 220 OHMS, 1/4W, 10%	R1				
63	058-689	RESISTOR, VARIABLE, 500 OHMS, 10%	R32				
64							
65	280-130	MTG. PAD, TRANSISTOR	REF Q1	1	1		1
66	280-131	MOUNTING PAD		2	2	2	2
67							
68							
69	475-007	SCREW, #4-40 X 5/16, SEM, PAN HD		2	2	2	2
70							
71	501-008	WASHER #4, FLAT		2	2	2	2
72							
73	580-135	TRANSISTOR, (2N4104)	Q1	1	1	1	1
74	4840380	SCHEMATIC, REPRODUCE MODULE			REF		
75	4840224	SCHEMATIC (MM1100)					REF
76	4840249	SCHEMATIC (AG441)		REF			
77	4840368	SCHEMATIC (MM1000 REPRODUCER)				REF	
78	4840369	SCHEMATIC (AG445)			REF		
79	4840371	SCHEMATIC (AG440)			REF	REF	
80	4840370	SCHEMATIC (MM1000)			REF		
81	4840372	SCHEMATIC (MM1100)					REF
82	4840330	SCHEMATIC (MM1100)				REF	



Assembly No. 4050435. Reproduce Amplifier PWA



NOTES:

1— UNLESS OTHERWISE NOTED ALL RESISTORS ARE 1/2 W, 10 % ALL CAPACITORS VALUES ARE IN MFD AT INDICATED VOLTAGE

2 > C49 FOR 4 CHANNEL UNITS ONLY

3— CAPACITOR SYMBOLS WITH CURVED PLATE INDICATES POLARITY SENSITIVE PART

4— REPRODUCE EQUALIZER 4020270-01 CAN BE ADJUSTED TO NAB AND/OR CCIR

5— ○ INDICATES VOLTS DC MEASURED WITH A 20,000Ω/V METER

△ INDICATES VOLTS DC MEASURED WITH A HIGH IMPEDANCE VTVM

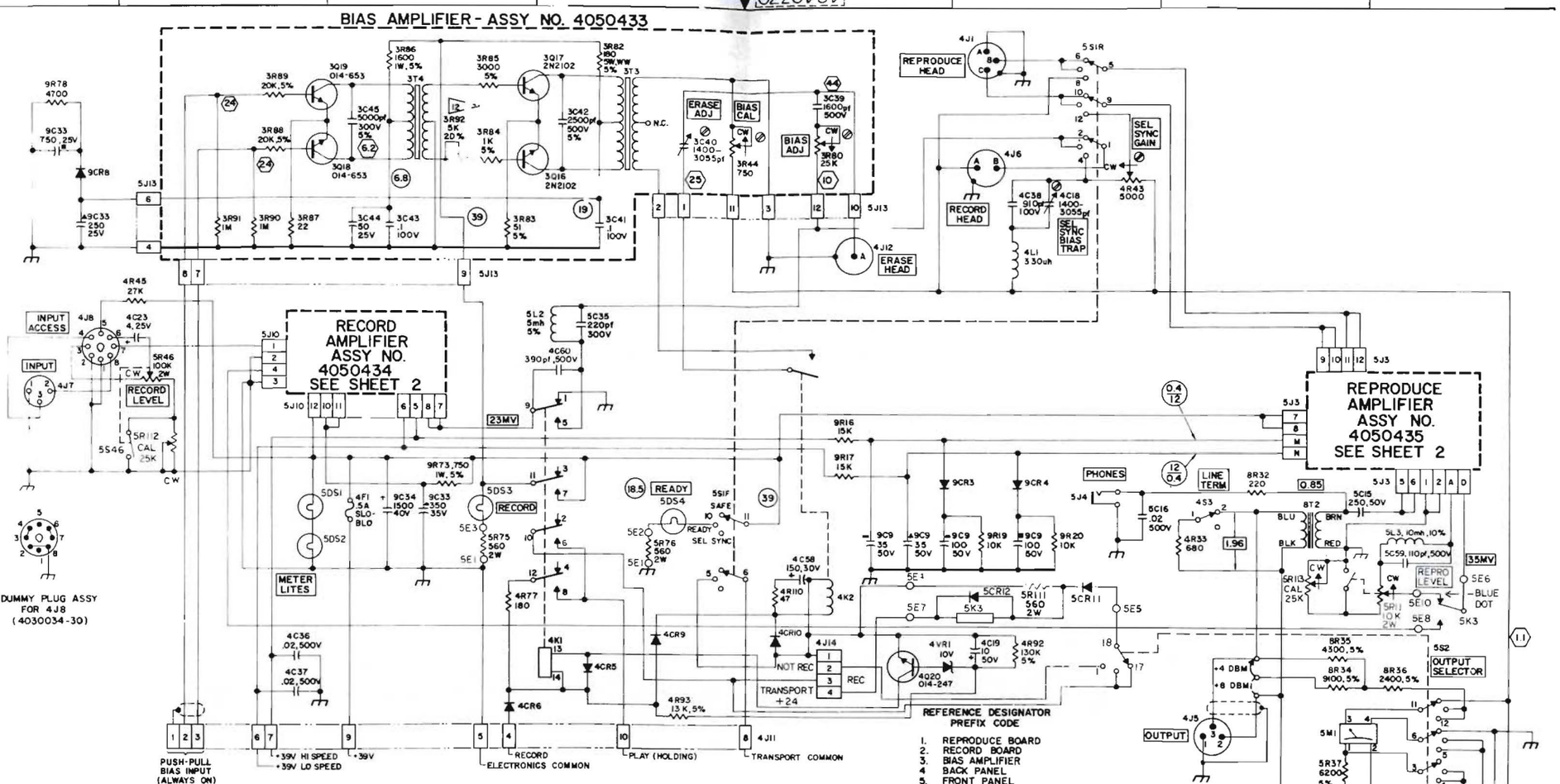
▭ INDICATES VOLTS RMS MEASURED WITH A HIGH IMPEDANCE VTVM AT OPERATING LEVEL OF 1000 H_z AT 7 1/2 IPS

TABLE I

ASSY NO.	SCHEMATIC ISSUE
4050435-09	—
4050435-13	A

LAST REF DES USED	REF DES NOT USED
R34 R107 C18 C51 J5 CR7 T2 Q8 P1	CR5,6

Schematic No. 4840369A.
Reproduce Amplifier PWA



REFERENCE DESIGNATOR PREFIX CODE

1. REPRODUCE BOARD
2. RECORD BOARD
3. BIAS AMPLIFIER
4. BACK PANEL
5. FRONT PANEL
6. TRANSPORT
7. POWER SUPPLY
8. RIGHT PANEL (FROM FRONT)
9. LEFT PANEL (FROM FRONT)
10. REPRODUCE EQUALIZER
11. RECORD EQUALIZER
12. POWER BOOST

NOTES: UNLESS OTHERWISE SPECIFIED

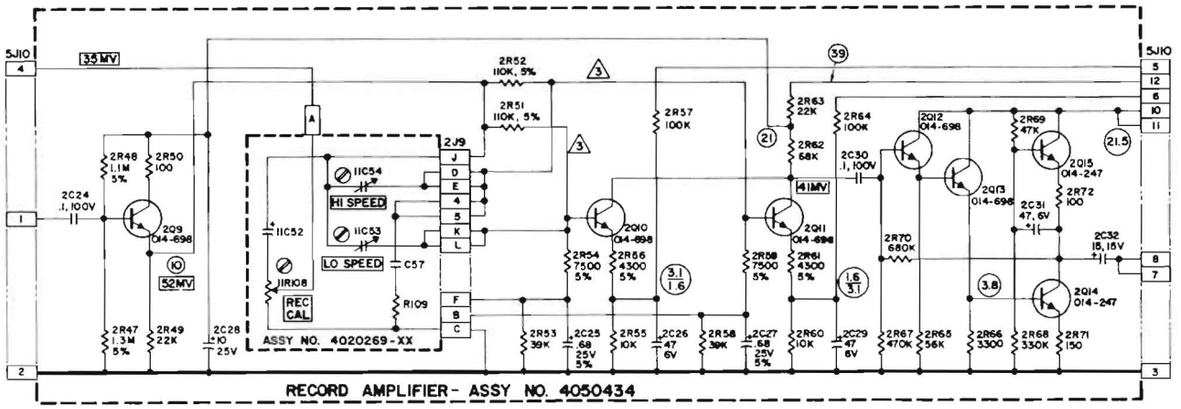
1. ALL RESISTOR VALUES ARE IN OHMS, 1/2W, 10%.
2. ALL CAPACITOR VALUES ARE IN MICROFARADS, AT INDICATED VOLTAGE.
3. ALL DIODES ARE TYPE 013-678.
4. SEE TABLE I FOR FIELD SERVICED TRANSISTORS.
5. REPRODUCE EQUALIZER 4020270-02 CAN BE ADJUSTED TO NAB AND/OR CCIR.
6. SHIELD DESIGNATIONS OMITTED TO PRESERVE DRAWING CLARITY.
7. (XX) INDICATES VOLTS D.C. MEASURED WITH A 20,000 OHM/VOLT METER.
8. (XX) INDICATES VOLTS D.C. MEASURED WITH A HIGH IMPEDANCE VTVM.
9. [XX] INDICATES VOLTS R.M.S. MEASURED WITH A HIGH IMPEDANCE VTVM AT OPERATING LEVEL OF 1000 HZ.
10. <XX> INDICATES VOLTS R.M.S. MEASURED WITH A HIGH IMPEDANCE VTVM AT BIAS FREQUENCY.
11. E9 NOT CONNECTED.
12. ADJUST R92 FOR MINIMUM NOISE FROM TAPE. IF NOISE NULL CANNOT BE FOUND, CHECK COMPONENTS FOR IMBALANCE OR HEADS FOR MAGNETIZATION.

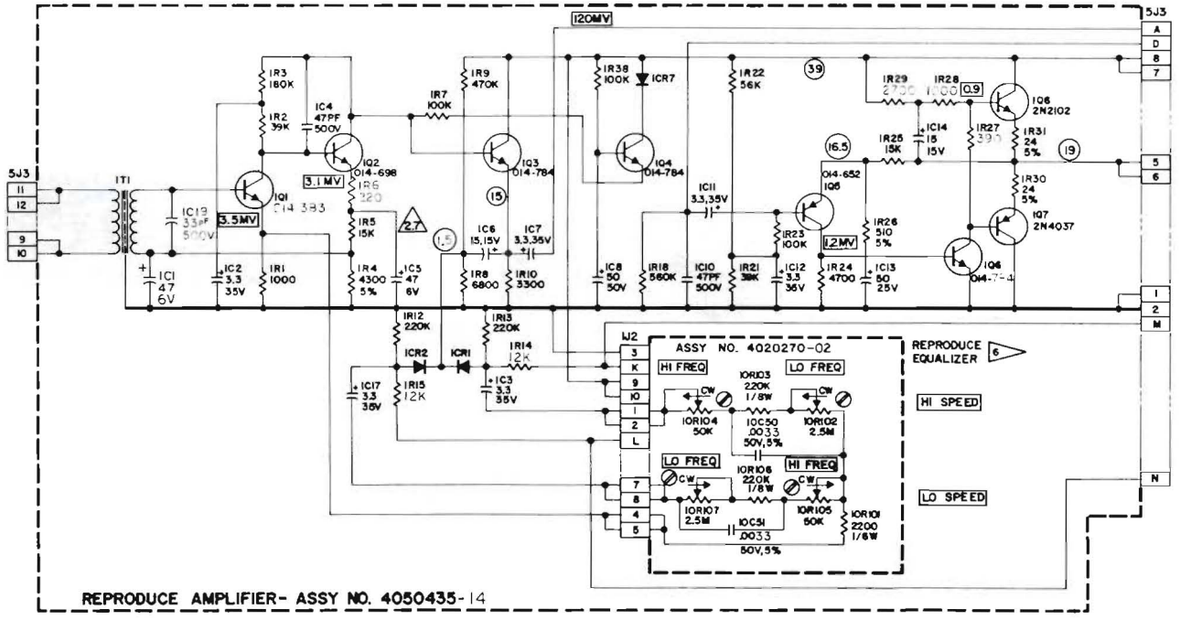
4 TABLE I
FOR FIELD SERVICE ONLY

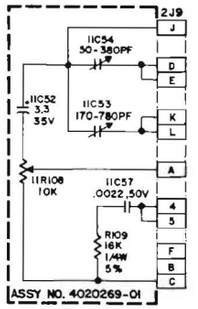
TRANSISTORS	MAY USE
1Q1, 1Q2, 2Q9 THRU 2Q13	2N3117 OR 2N5088
1Q3, 1Q4, 1Q6	2N4946
1Q5	2N3906
2Q14 THRU 3Q17, 4Q20	2N2219
3Q18, 3Q19	2N3904

LAST REF DES USED			REF DES NOT USED	
C60	K3	S3	R39-42	C20-22
CR12	L3	T4	R81	R79
F1	M1		R74	C46-49
I4	Q20		R94-100	J2
J14	R113			C38

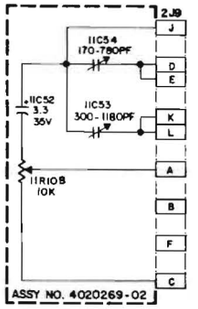
Schematic No. 4840370C.
Reproduce Amplifier PWA
(Sheet 1 of 2)



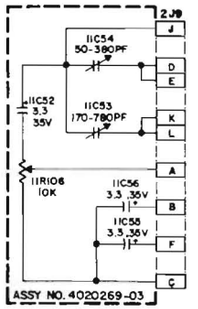




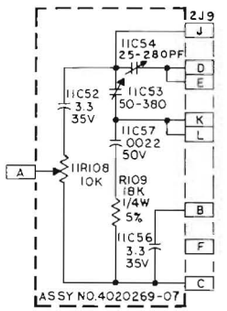
7 1/2 - 15 IPS NAB
(RECORD EQUALIZER)



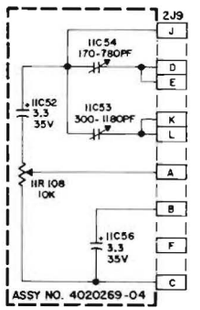
3 3/4 - 7 1/2 IPS NAB
(RECORD EQUALIZER)



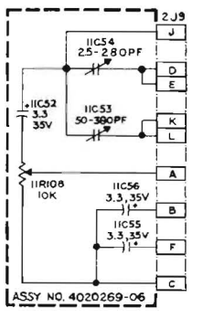
7 1/2 - 15 IPS I.E.C. (CCIR)
(RECORD EQUALIZER)



15 IPS NAB
30 IPS 17.5μS
(RECORD EQUALIZER)



3 3/4 - 7 1/2 IPS I.E.C.(CCIR)
(RECORD EQUALIZER)



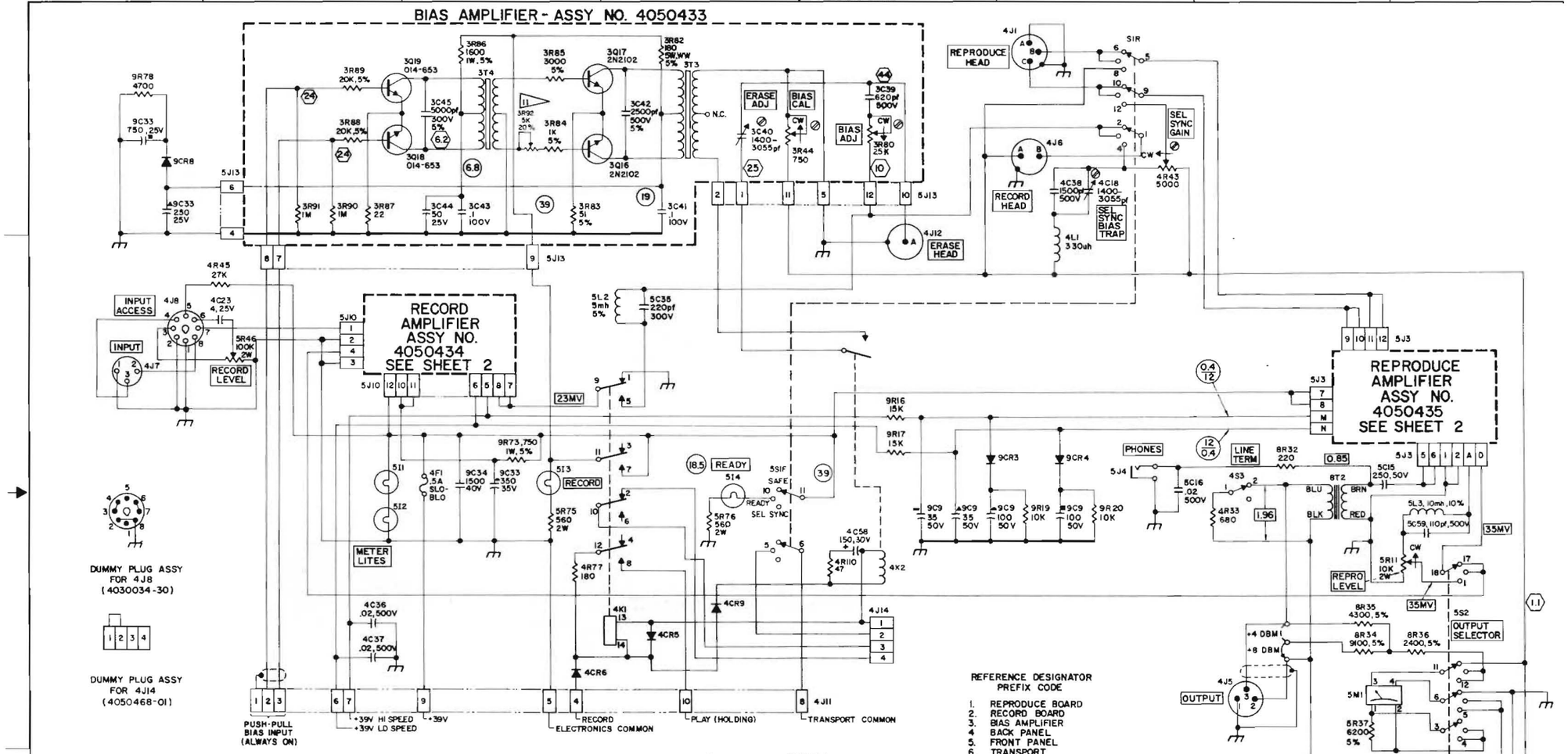
15 IPS CCIR
30 IPS 17.5μS
(RECORD EQUALIZER)

TABLE I

ASSY NO	SCHEMATIC ISSUE
REPRO AMP 4050435-10	—
REPRO AMP 4050435-14	A, B

NOTES:
SEE SHEET 1.

Schematic No. 4840370C.
Reproduce Amplifier PWA
(Sheet 2 of 2)



REFERENCE DESIGNATOR PREFIX CODE

1. REPRODUCE BOARD
2. RECORD BOARD
3. BIAS AMPLIFIER
4. BACK PANEL
5. FRONT PANEL
6. TRANSPORT
7. POWER SUPPLY
8. RIGHT PANEL (FROM FRONT)
9. LEFT PANEL (FROM FRONT)
10. REPRODUCE EQUALIZER
11. RECORD EQUALIZER
12. POWER BOOST

NOTES: UNLESS OTHERWISE SPECIFIED

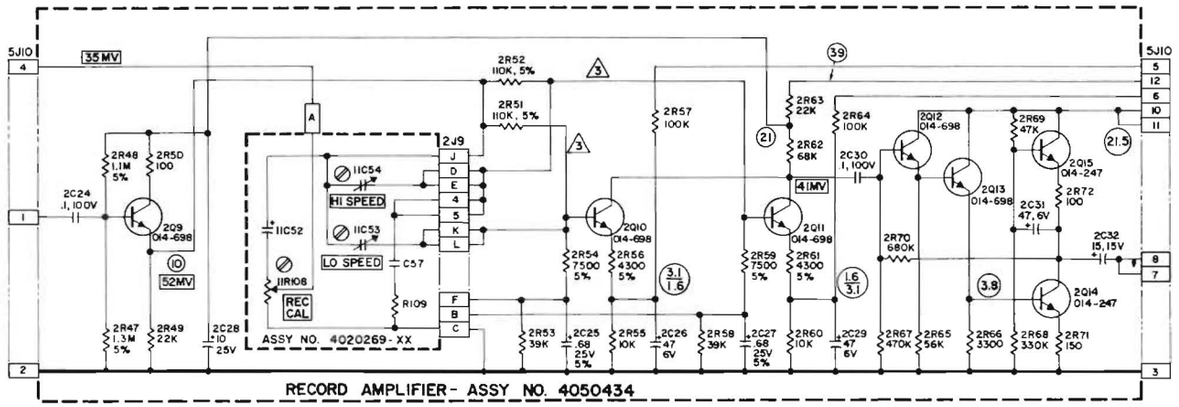
1. ALL RESISTOR VALUES ARE IN OHMS, 1/2W, 10%.
2. ALL CAPACITOR VALUES ARE IN MICROFARADS, AT INDICATED VOLTAGE.
3. ALL DIODES ARE TYPE 013-678.
4. SEE TABLE I FOR FIELD SERVICED TRANSISTORS.
5. REPRODUCE EQUALIZER 4020270-01 CAN BE ADJUSTED TO NAB AND/OR CCIR.
6. SHEILD DESIGNATIONS OMITTED TO PRESERVE DRAWING CLARITY.
7. (XX) INDICATES VOLTS D.C. MEASURED WITH A 20,000 OHM/VOLT METER.
8. C19 FOR 4 & 8 CHANNEL UNITS ONLY.
8. (XX) INDICATES VOLTS D.C. MEASURED WITH A HIGH IMPEDANCE VTVM.
8. (XX) INDICATES VOLTS R.M.S. MEASURED WITH A HIGH IMPEDANCE VTVM AT OPERATING LEVEL OF 1000HZ.
10. (XX) INDICATES VOLTS R.M.S. MEASURED WITH A HIGH IMPEDANCE VTVM AT BIAS FREQUENCY.
11. ADJUST R92 FOR MINIMUM NOISE FROM TAPE. IF NOISE CANNOT BE FOUND, CHECK COMPONENTS FOR IMBALANCE OR HEADS FOR MAGNETIZATION.

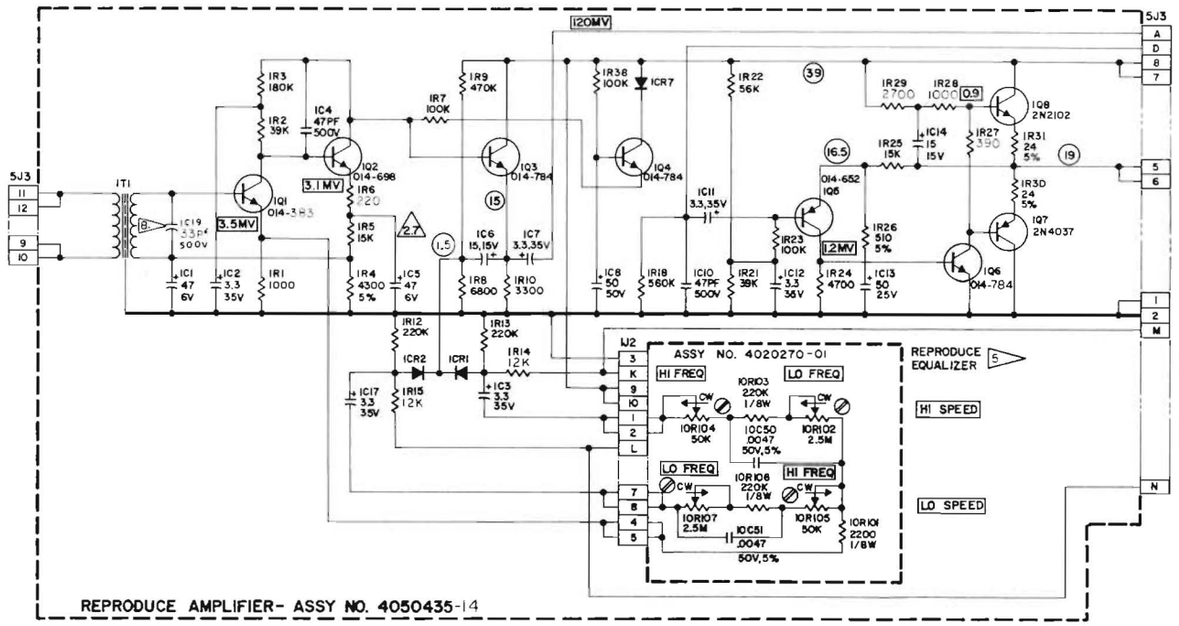
4 TABLE I
FOR FIELD SERVICE ONLY

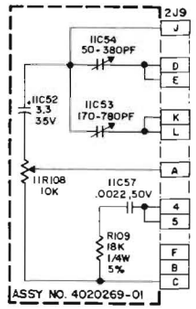
TRANSISTORS	MAY USE
IQ1, IQ2, IQ9 THRU IQ13	2N3117 OR 2N5088
IQ3, IQ4, IQ6	2N4946
IQ5	2N3906
IQ14 THRU 3Q17	2N2219
3Q18, 3Q19	2N3904

LAST REF DES USED			REF DES NOT USED		
C59	K2	S3	R39-42	C19-22	
CR9	L3	T4	R81	R79	
F1	M1		R74	C46-49	
I4	Q19		R93-100	J2	
J14	R110			C38	

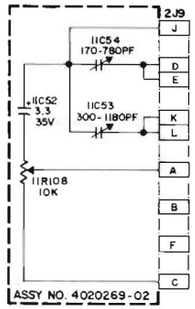
Schematic No. 4840371C.
Reproduce Amplifier PWA
(Sheet 1 of 2)



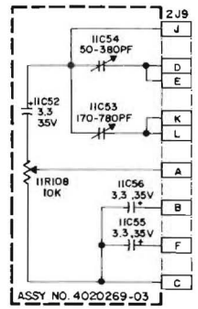




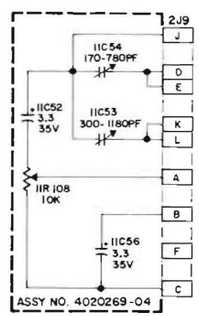
7 1/2 - 15 IPS NAB
(RECORD EQUALIZER)



3 3/4 - 7 1/2 IPS NAB
(RECORD EQUALIZER)



7 1/2 - 15 IPS I.E.C. (CCIR)
(RECORD EQUALIZER)



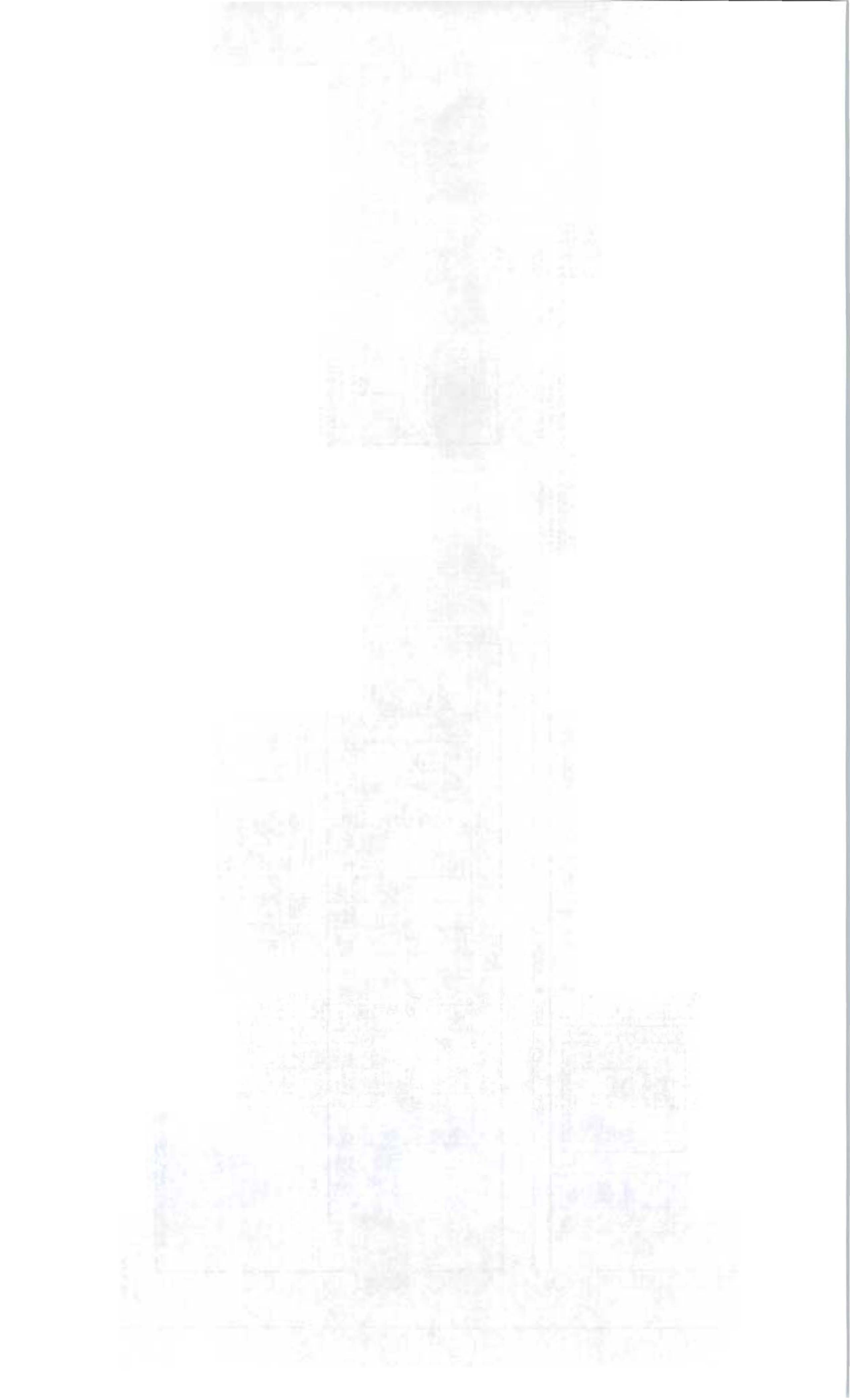
3 3/4 - 7 1/2 IPS I.E.C. (CCIR)
(RECORD EQUALIZER)

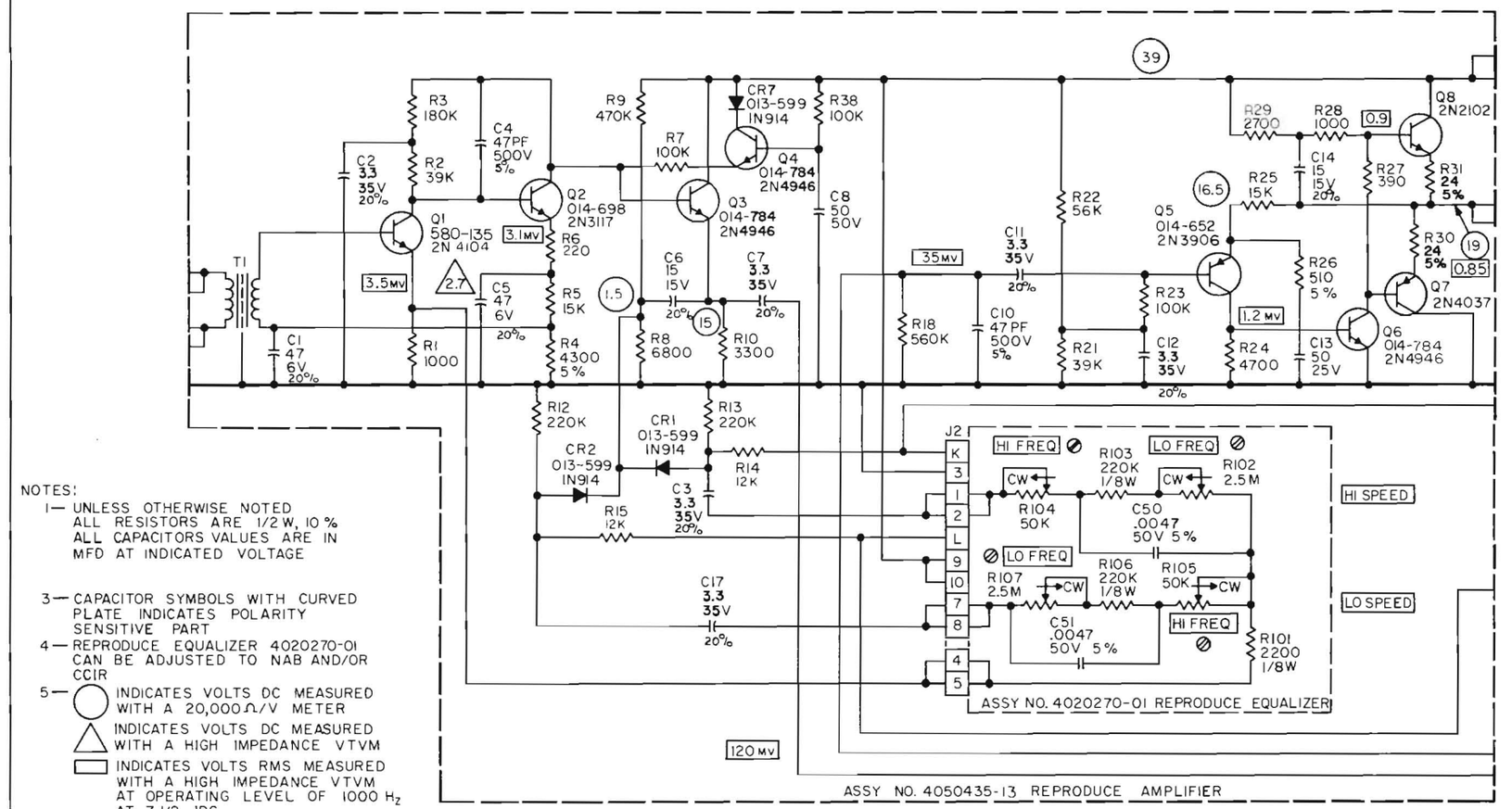
TABLE I

ASSY NO	SCHEMATIC ISSUE
REPRO AMP 4050435-10	—
REPRO AMP 4050435-14	A, B

NOTES:
SEE SHEET 1.

Schematic No. 4840371C.
Reproduce Amplifier PWA
(Sheet 2 of 2)





NOTES:

1— UNLESS OTHERWISE NOTED ALL RESISTORS ARE 1/2 W, 10 % ALL CAPACITORS VALUES ARE IN MFD AT INDICATED VOLTAGE

3— CAPACITOR SYMBOLS WITH CURVED PLATE INDICATES POLARITY SENSITIVE PART

4— REPRODUCE EQUALIZER 4020270-01 CAN BE ADJUSTED TO NAB AND/OR CCIR

5— ○ INDICATES VOLTS DC MEASURED WITH A 20,000Ω/V METER

△ INDICATES VOLTS DC MEASURED WITH A HIGH IMPEDANCE VTVM

▭ INDICATES VOLTS RMS MEASURED WITH A HIGH IMPEDANCE VTVM AT OPERATING LEVEL OF 1000 H_z AT 7 1/2 IPS

LAST REF DES USED	REF DES NOT USED
C 17	
CR 7	
J 2	
Q 8	
R 38	
T 1	

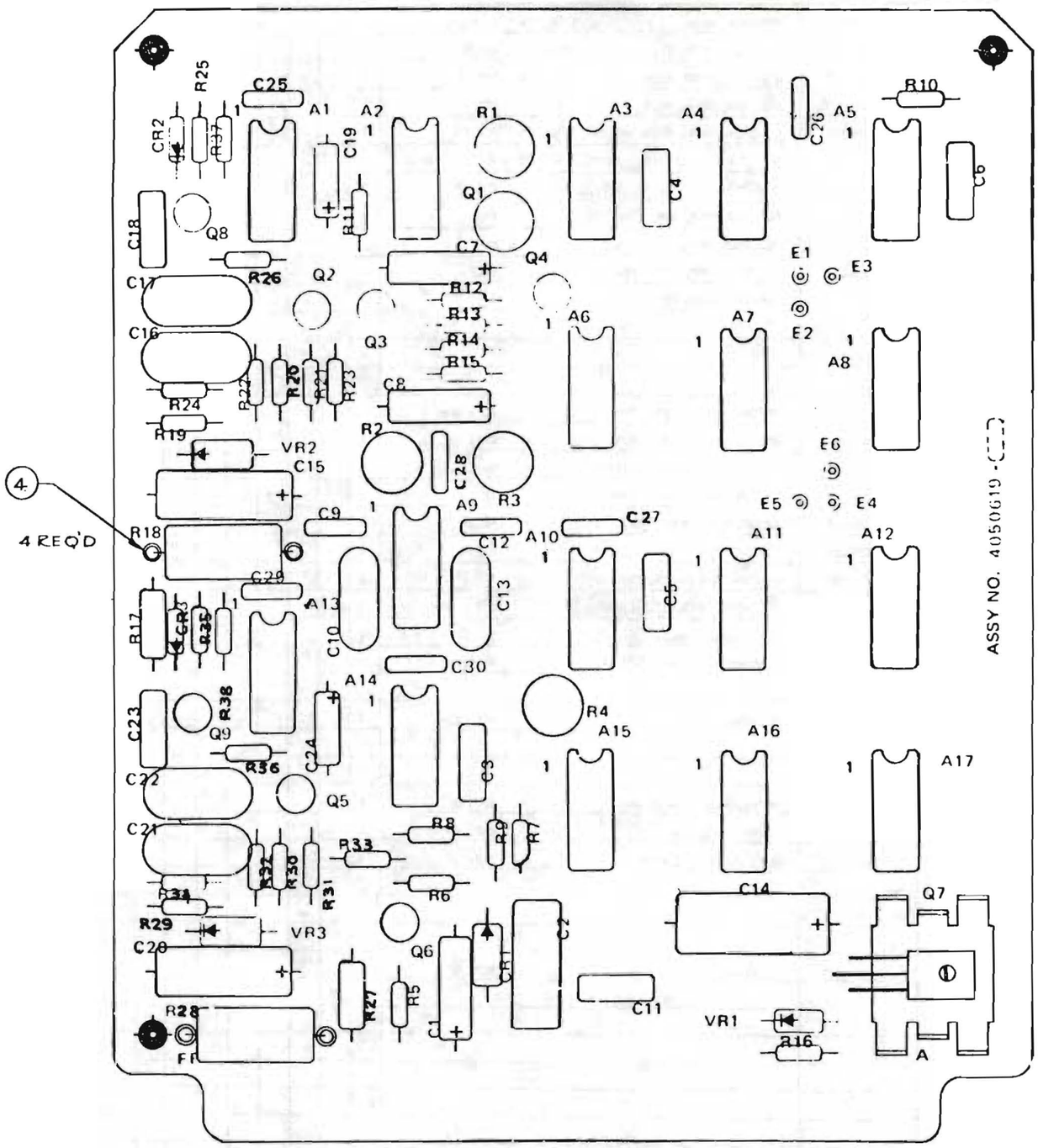
Schematic No. 4840380—.
Reproduce Amplifier PWA

4050619-01 SYNC LOCK PWA REV. E
NEXT HIGHER ASSEMBLY 4050750

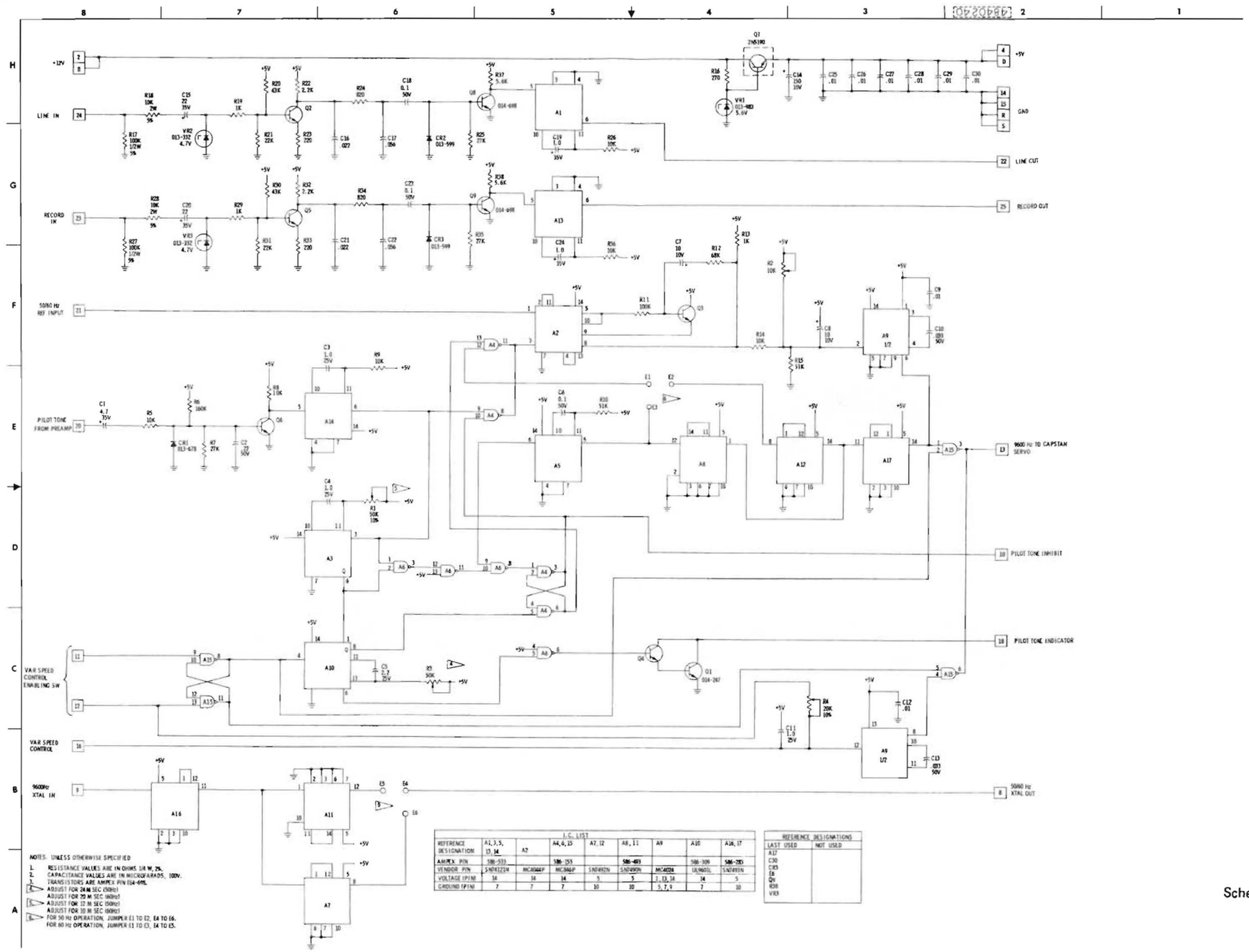
ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1					
2					
3	4840240	SCHEMATIC		REF	
4	103307-01	SPACER		4	
5	013-332	DIODE, ZENER, 4.7V CD32 (1N750A)		VR2,3	2
6	013-599	DIODE, CD458 (1N4531)		CR2,3	2
7	013-678	DIODE, CD451 (1N4385)		CR1	1
8	013-983	DIODE, ZENER, 5.6V CD32 (1N752A)		VR1	1
9					
10	014-247	TRANSISTOR (2N2219)		Q1	1
11	014-698	TRANSISTOR, NPN, CD562 (2N3565)		Q2-6,8,9	7
12	580-395	TRANSISTOR, (2N5190)		Q7	1
13					
14					
15	030-057	CAPACITOR, CER., .01uF, 100V, 20%		C9,12,25-30	8
16	030-094	CAPACITOR, MONO, 1uF, 25V, 20%		C3,4,11	3
17	030-223	CAPACITOR, MONO, 2.2uF, 25V, 20%		C5	1
18	054-174	CAPACITOR, CER, .033uF, 50V, +80-20%		C10,13,	2
19	035-893	CAPACITOR, MYLAR, 0.1uF, 50V, 5%		C6,18,23	3
20	037-070	CAPACITOR, TANT, 4.7uF, 35V, 10%		C1	1
21	037-164	CAPACITOR, TANT, 1uF, 35V, 10%		C19,24	2
22	037-736	CAPACITOR, TANT, 22uF, 35V, 10%		C15,20	2
23	037-109	CAPACITOR, TANT, 10uF, 20V, 5%		C7,8	2
24	038-261	CAPACITOR, MYLAR, .022uF, 100V, 10%		C16,21	2
25	037-507	CAPACITOR, TANT, 150uF, 15V, 5%		C14	1
26	C41-232	RESISTOR, COMP, 10KΩ, 2W, 5%		R18,28	2
27	057-082	RESISTOR, METAL FILM, 270Ω, 1/4W, 2%		R16	1
28	057-096	RESISTOR, METAL FILM, 1KΩ, 1/4W, 2%		R13,19,29	3
29	057-104	RESISTOR, METAL FILM, 2.2KΩ, 1/4W, 2%		R22,32	2
30	055-156	CAPACITOR, MYLAR, .22uF, 50V, 5%		C2	1
31	055-819	CAPACITOR, MYLAR, .056uF, 100V, 10%		C17,22	2
32					
33	057-080	RESISTOR, METAL FILM, 220Ω, 1/4W, 2%		R23,33	2
34	057-094	RESISTOR, METAL FILM, 820Ω, 1/4W, 2%		R24,34	2
35	057-120	RESISTOR, METAL FILM, 10KΩ, 1/4W, 2%		R5,8,9,14,26,36	6
36	057-128	RESISTOR, METAL FILM, 22KΩ, 1/4W, 2%		R21,31	2
37	057-114	RESISTOR, METAL FILM, 5.6K, 1/4W, 2%		R37,38	2

AMPEX	Ampex Corporation, Redwood City, California	CODE IDENT NO. 92739	LIST OF MATERIALS	LM-4050619 SHEET 2	REV E

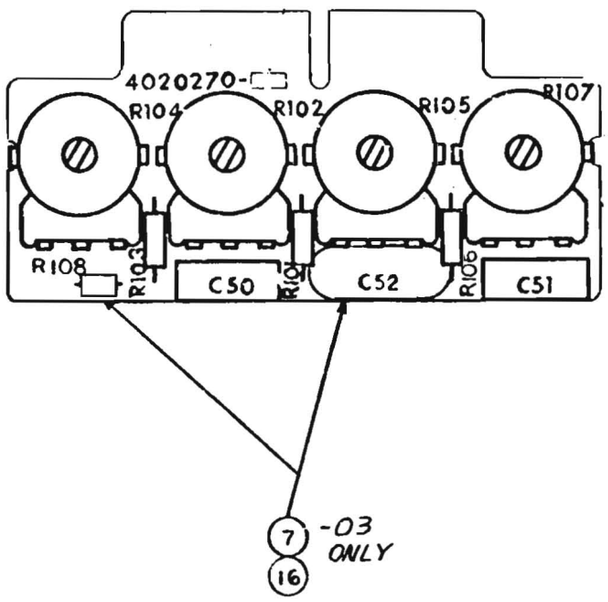
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
38	057-130	RESISTOR, METAL FILM, 27KΩ, 1/4W, 2%	R7,25,35	3
39	057-135	RESISTOR, METAL FILM, 43KΩ, 1/4W, 2%	R20,30	2
40	057-137	RESISTOR, METAL FILM, 51KΩ, 1/4W, 2%	R10,15	2
41	057-140	RESISTOR, METAL FILM, 68KΩ, 1/4W, 2%	R12	1
42	057-144	RESISTOR, METAL FILM, 100 KΩ, 1/4W, 2%	R11	1
43	057-149	RESISTOR, METAL FILM, 160KΩ, 1/4W, 2%	R6	1
44	041-023	RESISTOR, COMP, 100KΩ, 1/2W, 5%	R17,27	2
45	058-444	RESISTOR, VAR, 20K, 1/2W, 5%	R4	1
46	058-445	RESISTOR, VAR, 10K, 1/2W, 10%	R2	1
47	058-443	RESISTOR, VAR, 50K, 1/2W, 10%	R1,3	2
48	143-981	CONNECTOR JACK PC		6
49				
50				
51				
52	280-130	MTG PAD, TRANSISTOR, TO18	REF: Q2-6	7
53	280-998	MTG PAD, TRANSISTOR TO5	REF: Q1	1
54	586-533	INTEGRATED CIRCUIT, (MC74121P)	A1,3,5,13,14	5
55	586-740	INTEGRATED CIRCUIT, (MC4044P)	A2	1
56	586-248	INTEGRATED CIRCUIT, (MC7490P)	A8,11	2
57	587-084	INTEGRATED CIRCUIT, (MC7492P)	A7,12	2
58	586-283	INTEGRATED CIRCUIT, (MC7493P)	A16,17	2
59	586-309	INTEGRATED CIRCUIT, (MLS601L)	A10	1
60	586-807	INTEGRATED CIRCUIT, (MC4024)	A9	1
61	586-153	INTEGRATED CIRCUIT, (MC846P)	A4,6,15	3
62				
63	602-012	SHORTING PLUG	REF: E1-E6	2
64				
65				
66	471-062	SCREW, MACH, PAN HD #4-40	REF: Q7	1
67	501-008	WASHER, PLAIN #4	REF: Q7	1
68	492-008	NUT, PLAIN, HEX #4-40	REF: Q7	1
69				
70				
71				
72	580-332	HEATSINK	REF: Q7	1



Assembly No. 4050619. Sync Lock PWA



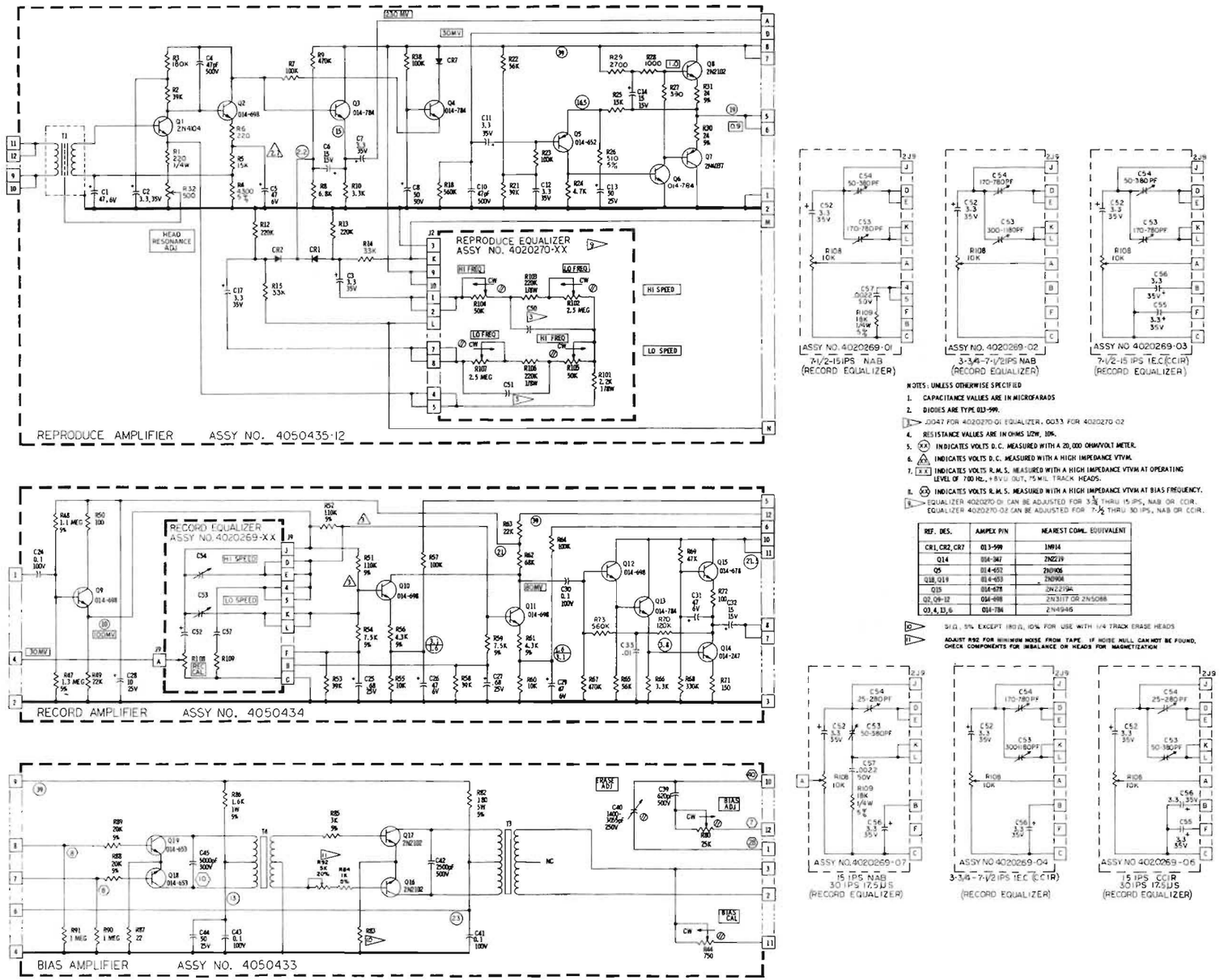
Schematic No. 4840240–.
Sync Lock PWA



-03	-02	-01	ITEM NO	PART NUMBER	DESCRIPTION	
		1	17			
	-	-	16	049-592	RESISTOR, COMP, 1.2MΩ, 1/8W, 10%	R108
1	REF	REF	15	4840249	SCHEMATIC	
-	REF	REF	14	4840260	SCHEMATIC	
0	REF	-	13	4840372	SCHEMATIC 15-30 I.P.S.	
-	REF	-	12	4840330	SCHEMATIC 7.5-15 I.P.S.	
-	-	REF	11	4840371	SCHEMATIC	
-	-	REF	10	4840369	SCHEMATIC	
-	REF	-	9	4840370	SCHEMATIC	
2	2	-	8	055-889	CAPACITOR, .0033 MFD, MYLAR	C50, 51
1	-	-	7	034-957	CAPACITOR, MICA, 820PF, 5%, 500V	C52
-	-	2	6	055-222	CAPACITOR, .0047 MFD, MYLAR	C50, 51
1	1	1	5	049-527	RESISTOR, 2.2K, 1/8 W, 10%	R101
2	2	2	4	049-528	RESISTOR, 220K, 1/8 W, 10%	R103, 106
2	2	2	3	C-4520152-02	POTENTIOMETER, 2.5 MEG	R102, 107
2	2	2	2	C-4520152-01	POTENTIOMETER, 50K	R104, R105
-	-	-	1			

LIST OF MATERIALS

Assembly No. 4020270. Reproduce Equalizer PWA



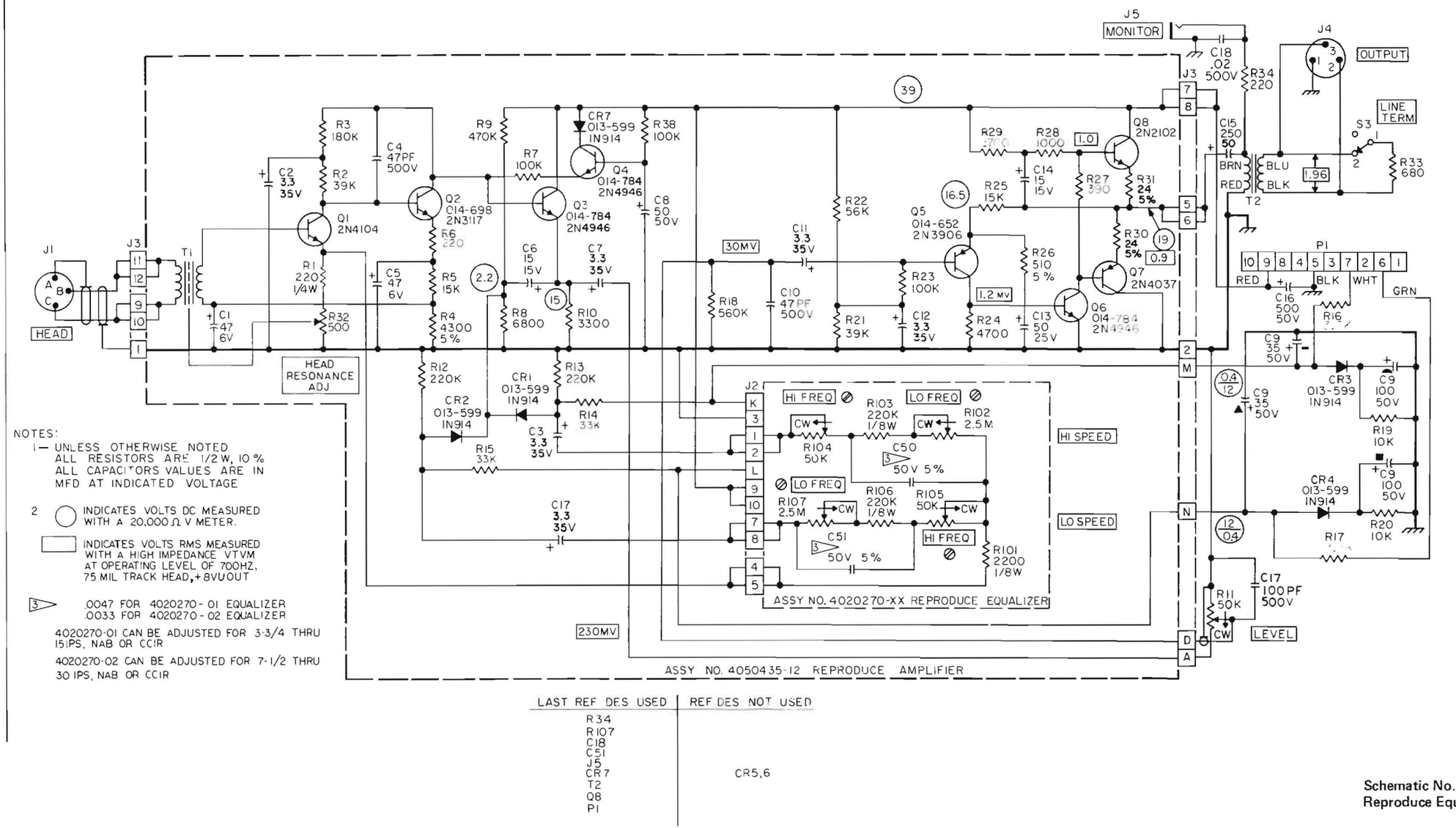
NOTES: UNLESS OTHERWISE SPECIFIED

1. CAPACITANCE VALUES ARE IN MICROFARADS
2. DIODES ARE TYPE 013-599.
3. .0047 FOR 4020270-01 EQUALIZER, .0033 FOR 4020270-02
4. RESISTANCE VALUES ARE IN OHMS 1/2W, 10%.
5. (XX) INDICATES VOLTS D.C. MEASURED WITH A 20,000 OHM/VOLT METER.
6. (XX) INDICATES VOLTS D.C. MEASURED WITH A HIGH IMPEDANCE VTVM.
7. (XX) INDICATES VOLTS R.M.S. MEASURED WITH A HIGH IMPEDANCE VTVM AT OPERATING LEVEL OF 700 HZ., +8 V.U. OUT, 15 MIL TRACK HEADS.
8. (XX) INDICATES VOLTS R.M.S. MEASURED WITH A HIGH IMPEDANCE VTVM AT BIAS FREQUENCY.
9. EQUALIZER 4020270-01 CAN BE ADJUSTED FOR 3¾ THRU 15 IPS, NAB OR CCIR. EQUALIZER 4020270-02 CAN BE ADJUSTED FOR 7½ THRU 30 IPS, NAB OR CCIR.

REF. DES.	AMPEX P/N	NEAREST COML. EQUIVALENT
CR1, CR2, CR7	013-599	1N914
Q14	014-367	2N2219
Q5	014-452	2N3906
Q18, Q19	014-653	2N3906
Q15	014-678	2N2219A
Q2, Q9-12	014-698	2N3117 OR 2N5088
Q3, 4, 13, 6	014-784	2N4946

10. SIG., 5% EXCEPT 180Ω, 10% FOR USE WITH 1/4 TRACK ERASE HEADS
11. ADJUST R92 FOR MINIMUM NOISE FROM TAPE. IF NOISE NULL CAN NOT BE FOUND, CHECK COMPONENTS FOR IMBALANCE OR HEADS FOR MAGNETIZATION

Schematic No. 4840249D.
Reproduce Equalizer PWA



NOTES:

1 — UNLESS OTHERWISE NOTED
ALL RESISTORS ARE 1/2 W, 10 %
ALL CAPACITORS VALUES ARE IN MFD AT INDICATED VOLTAGE

2 ○ INDICATES VOLTS DC MEASURED WITH A 20,000 Ω V METER.

▭ INDICATES VOLTS RMS MEASURED WITH A HIGH IMPEDANCE VTVM AT OPERATING LEVEL OF 700HZ, 75 MIL TRACK HEAD, + 8VU OUT

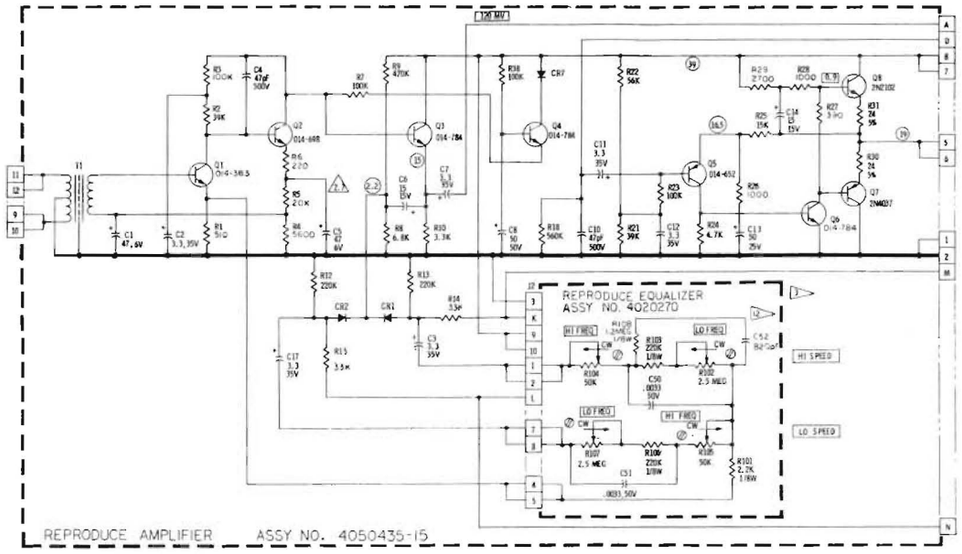
3 .0047 FOR 4020270-01 EQUALIZER
.0033 FOR 4020270-02 EQUALIZER

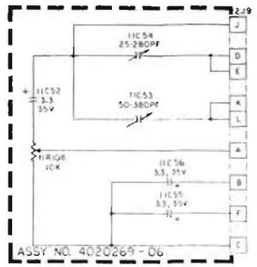
4020270-01 CAN BE ADJUSTED FOR 3-3/4 THRU 15IPS, NAB OR CCIR

4020270-02 CAN BE ADJUSTED FOR 7-1/2 THRU 30 IPS, NAB OR CCIR

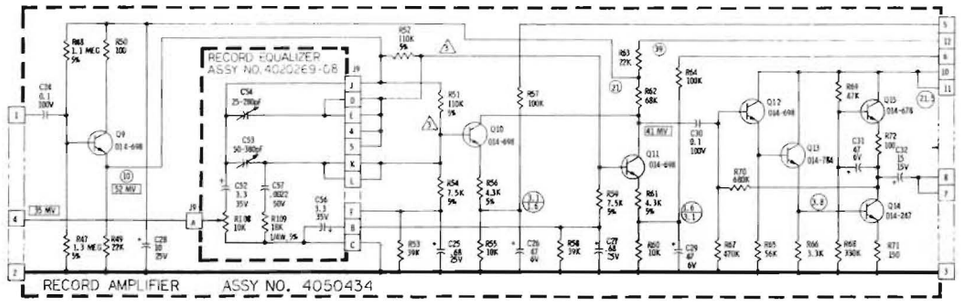
LAST REF DES USED	REF DES NOT USED
R34 R107 C18 C51 J5 CR7 T2 Q8 P1	CR5,6

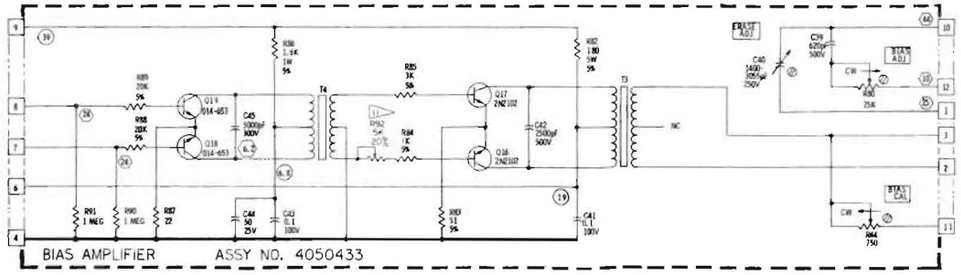
Schematic No. 4840260B.
Reproduce Equalizer PWA





15 IPS CCIR
30 IPS 17.5 US
(RECORD EQUALIZER)





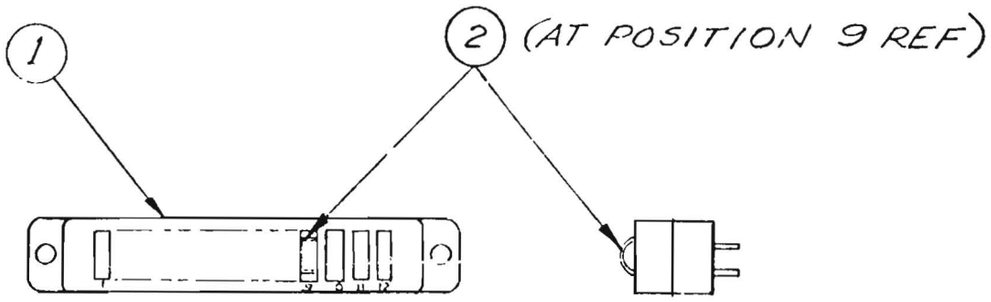
NOTES: UNLESS OTHERWISE SPECIFIED

1. CAPACITANCE VALUES ARE IN MICROFARADS
2. DIODES ARE TYPE 013-599.
3. REPRODUCE EQUALIZER 4020270-02 AND -03 CAN BE ADJUSTED TO NAB AND/OR CCIR.
4. RESISTANCE VALUES ARE IN OHMS 1/2W, 10%.
5. (XX) INDICATES VOLTS D.C. MEASURED WITH A 20,000 OHM/VOLT METER.
6. XX INDICATES VOLTS D.C. MEASURED WITH A HIGH IMPEDANCE VTVM.
7. XXX INDICATES VOLTS R.M.S. MEASURED WITH A HIGH IMPEDANCE VTVM AT OPERATING LEVEL OF 1000 Hz.
8. (XX) INDICATES VOLTS R.M.S. MEASURED WITH A HIGH IMPEDANCE VTVM AT BIAS FREQUENCY.
9. REFERENCE DRAWING 4860244, SCHEMATIC AUDIO SWITCHING.
10. FIELD SERVICE COMPONENT SUBSTITUTION

REF. DES.	AMPEX P/N	NEAREST COML. EQUIVALENT
CR1, CR2, CR7	013-599	1N914
Q14	014-267	2N2219
Q5	014-652	2N3906
Q18, Q19	014-653	2N3906
Q15	014-678	NONE
Q7, Q9-12	014-698	NONE
Q3, 4, 13, 6	014-784	NONE
Q1	014-5838	2N4104

11. ADJUST R92 FOR MINIMUM NOISE FROM TAPE. IF NOISE NULL CANNOT BE FOUND, CHECK COMPONENTS FOR IMBALANCE OR HEADS FOR MAGNETIZATION.
12. R68 AND C52 USED IN 4020270-03 MM1200 HIGH SPEED UNITS ONLY.

Schematic No. 4840372G.
Reproduce Equalizer PWA

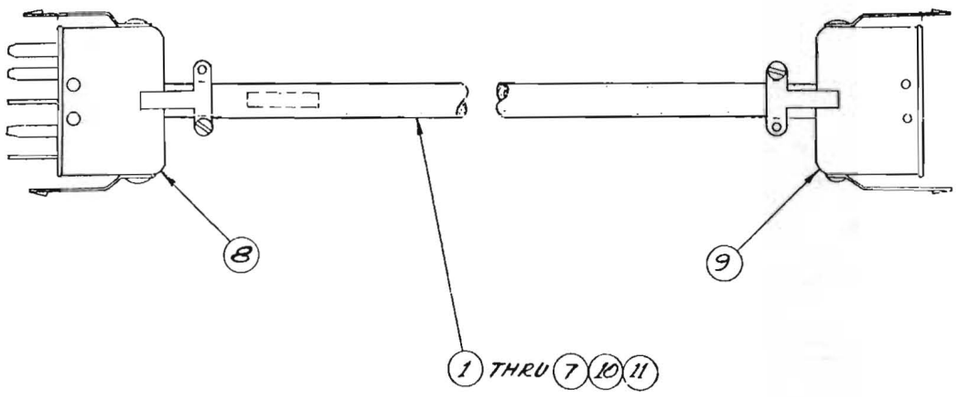


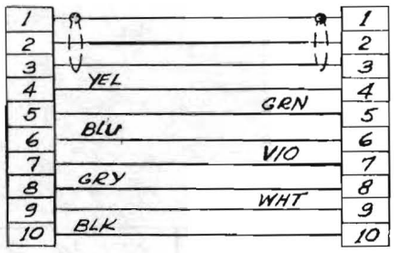
-01 SHOWN

PART NO.	ITEM 2 AT POSITION NO.
4030269-01	9
4030269-02	5
4030269-03	3

-03	-02	-01	ITEM NO.	PART NO.	DESCRIPTION
1	1	1	2	169-818	KEY, POLARIZING
1	1	1	1	143-308	CONNECTOR, 12 CONTACT

Assembly No. 4030269. 12 Contact Connector





SCHEMATIC DIAGRAM

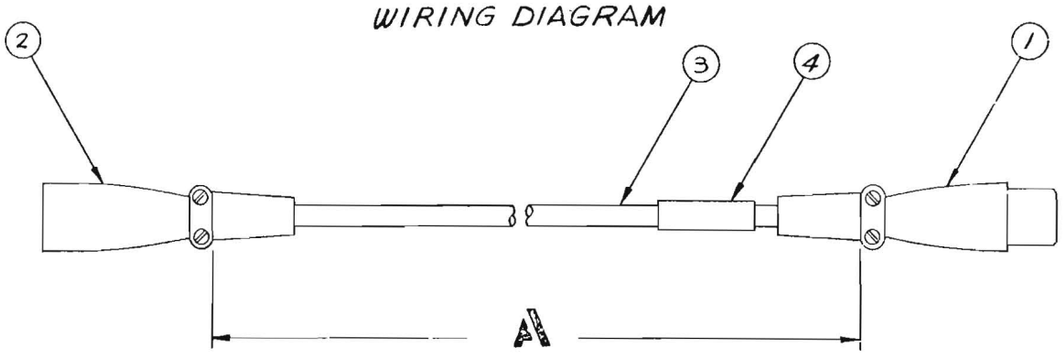
-01	ITEM NO.	PART NUMBER	DESCRIPTION
A/R	11	616-283	CABLE, SHIELDED, 2 COND, #22 GA, BLK, RED
A/R	10	600-063	SLEEVING, 7/16", BLACK
1	9	144-058	CONNECTOR, RECT. PLUG, 10 CONTACTS
1	8	145-020	CONNECTOR, RECT. RECP., 10 CONTACTS
A/R	7	4700440-99	WIRE, #22 AWG, BUNCH TINNED, WHT
A/R	6	4700440-88	GRY
A/R	5	4700440-77	VIO
A/R	4	4700440-66	BLUE
A/R	3	4700440-55	GRN
A/R	2	4700440-44	YEL
A/R	1	4700440-00	WIRE, #22 AWG, BUNCH TINNED, BLK

LIST OF MATERIALS

Assembly No. 4050442. Electronics Interconnect Cable



WIRING DIAGRAM



DASH NO.	A DIM
-01	30.00 ±.50
-02	96.00 ±.50
-03	66.00 ±.50

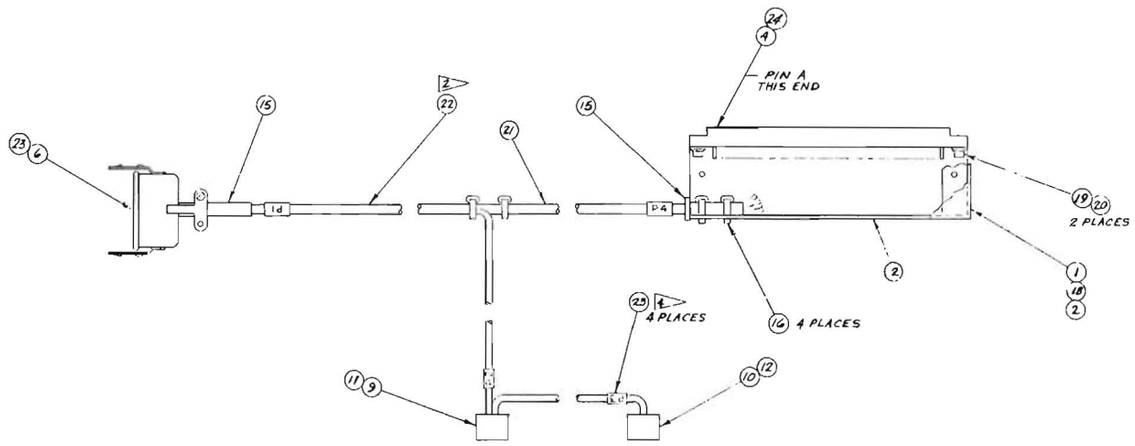
A/R	4	600-131	SLEEVING, .125 DIA SHRINK, BLACK
A/R	3	616-756	CABLE, SHIELDED & JKTD, SIGNAL GAUGE
1	2	145-009	CONNECTOR, SIGNAL CIRCUIT, AUDIO PLUG, 3 PINS
1	1	144-003	CONNECTOR, SIGNAL CIRCUIT, AUDIO PLUG, 3 SOC
-01	ITEM NO	PART NUMBER	DESCRIPTION

PARTS LIST

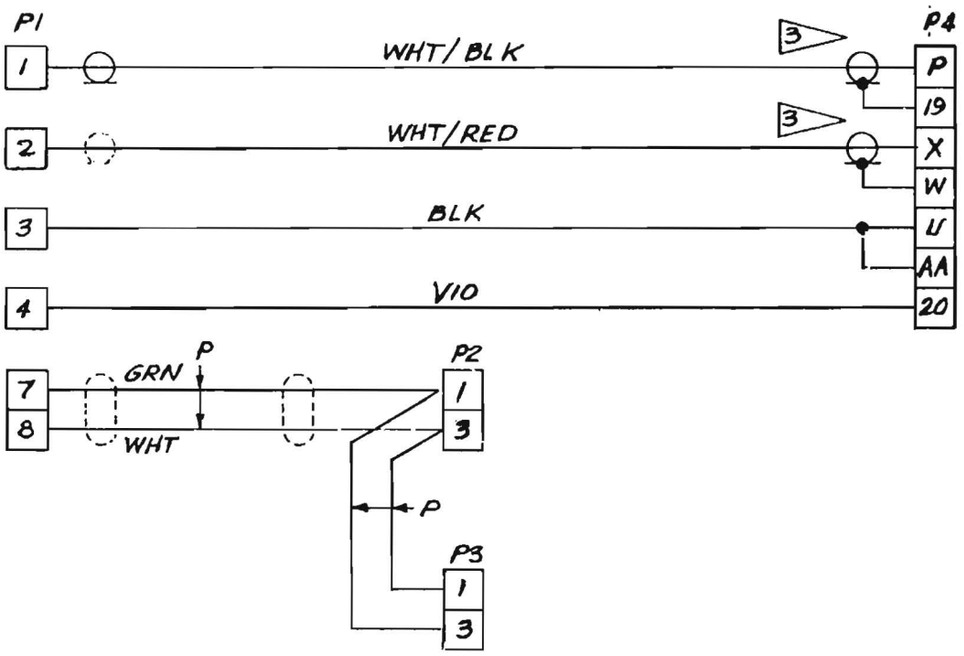
Assembly No. 4050726. Sync Interconnect Cable

4050867-01 ATR-100 SYNC INTERCONNECT CABLE ASSEMBLY REV. D
NEXT HIGHER ASSEMBLY 4020391

ITEM NO.	PART NUMBER	D DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4290958-01	COVER, ACCESSORY CONNECTOR		1
2	4260574-01	BRACKET, ACCESSORY CONNECTOR		1
3				
4	143-804	CONNECTOR, 56 PIN	P4	1
5				
6	144-023	CONNECTOR, SIG RECT 8 SOCKET	P1	1
7				
8				
9	166-226	CONTACT. PIN, 24-26 AWG		2
10	166-224	CONTACT, SOCKET 24-26 AWG		2
11	167-450	CONNECTOR BODY, FEMALE SHELL	P2	1
12	167-451	CONNECTOR BODY, MALE SHELL	P3	1
13				
14				
15	262-003	BUSHING, SLEEVE, FLG, 312 I.D.		2
16	302-379	STRAP, CABLE		4
17				
18	476-998	SCREW, TAPPING HEX WSHR HD SLTD DRIVE 6-20 X.25 LG		2
19	470-008	SCREW, CAP, SOCKET 4-40 X .25 LG		2
20	502-002	WASHER, LOCK #4		2
21	600-009	SLEEVING, PVC, FLEX .208 I.D. BLACK		A/R
22	600-101	SLEEVING, PVC, FLEX .294 I.D. BLACK		A/R
23		SLEEVING, SHRINK, CLEAR		A/R
24		SLEEVING, SHRINK, CLEAR, POF		A/R
25				
26	613-024	CABLE, SHIELDED, JACKETED, SINGLE COND #26 AWG WHT/RED		A/R
27	613-052	CABLE, SHIELDED, JACKETED, SINGLE COND #26 AWG WHT/BLK		A/R
28				
29	614-686	WIRE, INSULATED, STRANDED, #22 AWG BLACK		A/R
30	614-693	WIRE, INSULATED, STRANDED, #22 AWG, VIO		A/R
31				
32	616-541	CABLE, SHIELDED, JACKETED, 2 CONT, #26 AWG		A/R
33	602-253	SLEEVING, SHRINKABLE, .125 I.D.		A/R
34	718-006	BAG, PLASTIC 12" X 14"		1

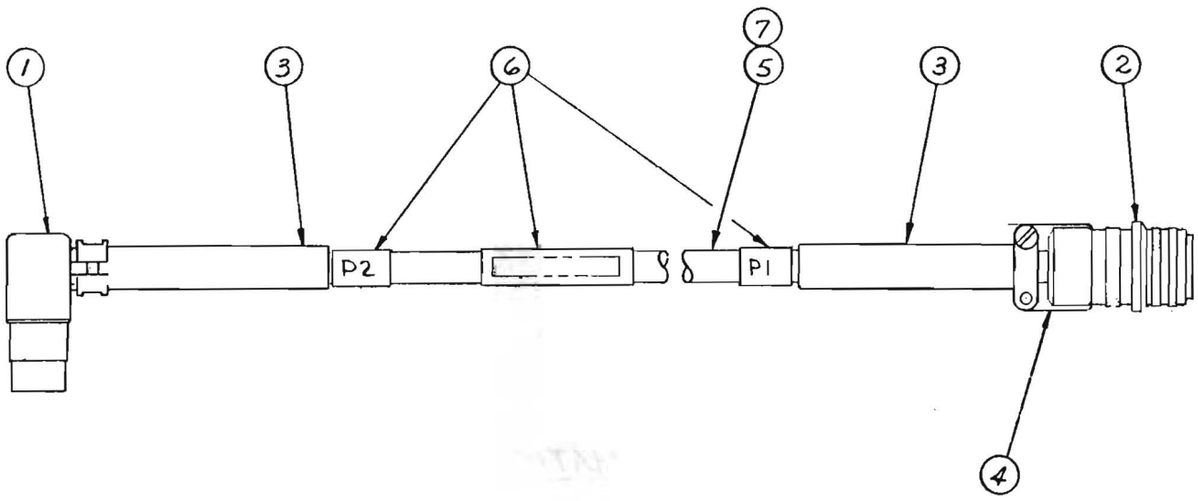


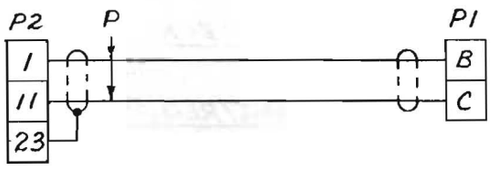
SCHEMATIC



NOTES
1. PART NUMBER IS 4050867-01
2. MARK PART NUMBER PER BDI-1.
3. SHIELDS CONNECTED AT ONE END ONLY.
4. MARK REF DESIGNATION AS INDICATED PER BDI-1.

Assembly No. 4050867. ATR-100 Sync Interconnect Cable





-01	ITEM NO.	PART NUMBER	DESCRIPTION	
			PARTS LIST	
A/R	8		SLEEVING, SHRINK, CLEAR	
A/R	7	616-541	CABLE, 2 COND, SHLD & JKTD, 26 AWG	
A/R	6		SLEEVING, SHRINK, BLK	
A/R	5	600-011	SLEEVING, PVC, FLEX. BLK., .166 I. D.	
1	4	302-014	CONN. PART, CLAMP, CABLE	
2	3	262-002	BUSHING, SLEEVE, FLANGED, .220 I.D.	
1	2	140-008	CONNECTOR, PLUG, CIRCULAR, 3 CONTACT	P1
1	1	139-840	CONNECTOR, PLUG, MALE, RECT, 24 CONTACT	P2

Assembly No. 4050866. Sync Pilot Tone Interconnect Cable

4010252-01 RACK MOUNTING KIT (FIXED) REV. B

NEXT HIGHER ASSEMBLY 4010294,4010295, 4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4030422-01	FAN ASSEMBLY, RACK MOUNT		1
2				
3	4041253-01	PANEL ASSEMBLY,ELECT. ACCESSORY		1
4				
5	4290938-01	COVER, ELECT. ACCESSORY		1
6	4890259	INSTALLATION INSTRUCTIONS		-
7	310-991	PLUNGER,PLASTIC,LATCH (HARTWELL H323-2-1-1)		2
8	310-992	GROMMET,PLASTIC,LATCH (HARTWELL H2102-1-1)		2
9				
10	472-482	SCREW,CAP,BUTTON HEAD,HEX SOC DRIVE 6-32 X .250 LG		6
11	496-005	NUT, ASSEM. WASH., 6-32		-

4030422-01 FAN ASSEMBLY, RACK MOUNT (FIXED) REV. A
NEXT HIGHER ASSEMBLY 4010252

ITEM NO.	PART NUMBER		DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4041282-02		PLENUM ASSY		1
2					
3	591-053		FAN		1
4	591-126		FILTER ASSY		1
5	591-140		CORD SET		1
6	496-005		NUT, 6-32 (KEP)		4
7	471-336		SCREW, 6-32 X .375 FL HD		4
8	167-337		PIN, CONNECTOR		2
9	167-450		CONNECTOR BODY		1

4010259-01 PORTABLE CASE KIT REV. A

NEXT HIGHER ASSEMBLY 4010294,4010295, 4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4150379-01	CASE, PORTABLE		1
2	4290974-01	PANEL, FILLER, .97		1
3	4290975-02	PANEL, FILLER, 1.50		1
4	4290976-01	PANEL, FILLER, 3.47		1
5	4290977-01	PANEL, FILLER, 5.22		1
6				
7				
8				
9	167-337	CONTACT, CONNECTOR		2
10	167-450	CONNECTOR, BODY		1
11				
12				
13	470-040	SCREW,CAP 10-32 X .75 LG		3
14				
15	471-448	SCREW, 6-32 X 1.25		4
16				
17	473-935	SCREW, ATTACHED WASHER 10-32 X .500 LG		12
18				
19	496-005	NUT 6-32 KEP		4
20	497-190	NUT #10-32 SPRING		15
21				
22				
23				
24	501-009	WASHER, #6 FLAT		8
25				
26	591-053	FAN		1
27	591-140	CORD SET		1
28	591-207	GUARD,FAN		1

4010322-01 HEAD ASSEMBLY KIT, TWO TRACK, 1/2 INCH REV. –
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4020463-01	HEAD ASSY, TWO TRACK, 1/2 INCH		1
2	4041240-AC	TAPE GUIDE ASSY, 1/2 INCH SUPPLY		1
3	4041240-AD	TAPE GUIDE ASSY, 1/2 INCH TAKE-UP		1

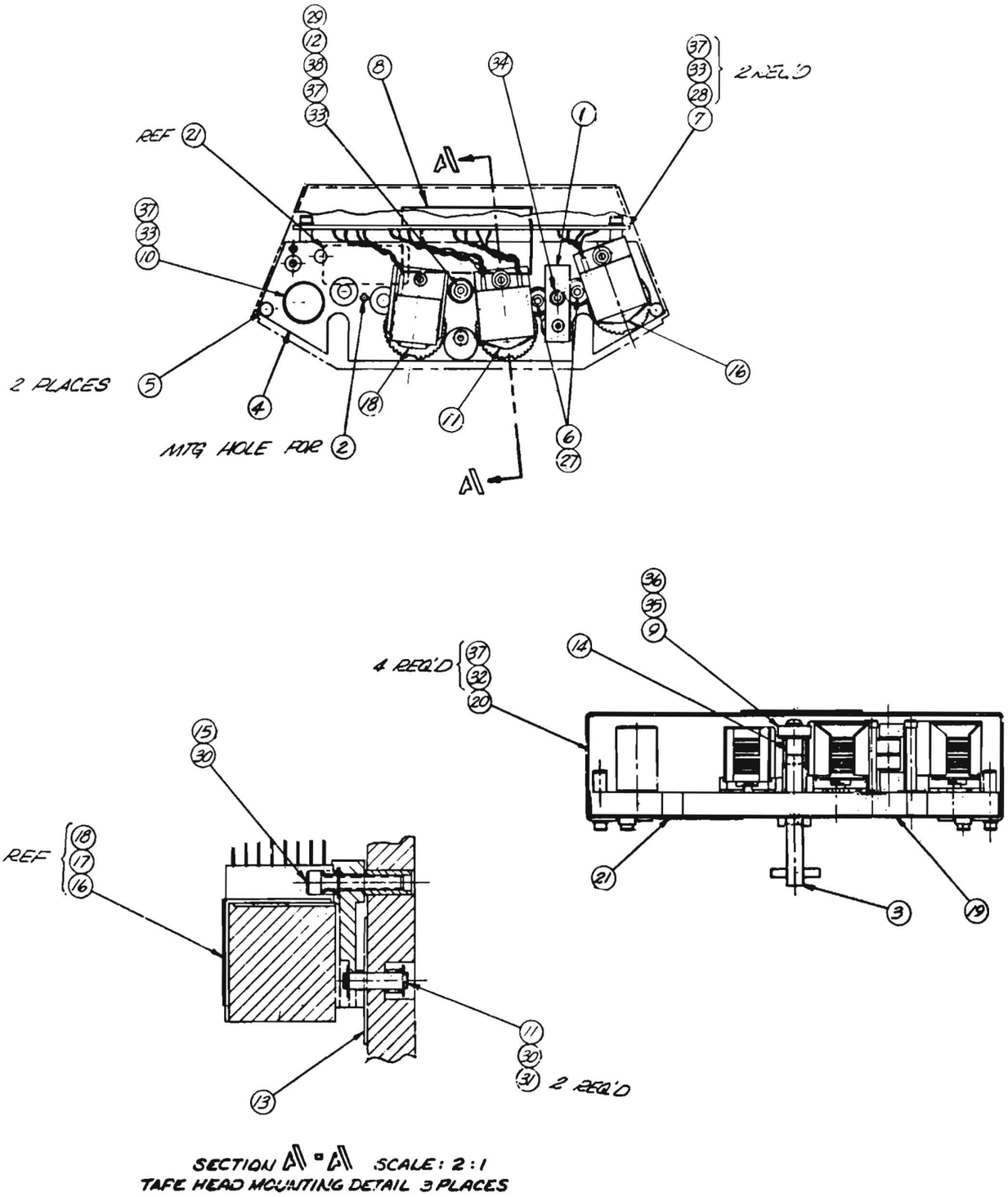
4020463-01 HEAD ASSEMBLY, TWO TRACK, 1/2 INCH REV. –
NEXT HIGHER ASSEMBLY 4010322

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4030402-AE		IDLER ASSEMBLY, SCRAPE FLUTTER		1
2	4030402-AF		SCRAPE, FLUTTER IDLER ACCESSORY	1	1
3	4041225-01		SHAFT ASSEMBLY, HEAD ASSY LOCK		1
4	4041237-02		PLATE ASSEMBLY, HEAD		1
5	4041243-02		GUIDE ASSY		2
6	4041265-01		PINION GEAR ASSY		2
7	4050837-01		P.W.A. HEAD CONNECTOR		1
8	4170342-01		LABEL, HEAD AND PWA WARNING		1
9	4210361-02		GUIDE, EDGE HEAD		1
10	4210362-01		POST DUMMY HEAD		1
11	4210385-01		PIN, HEAD RETAINING		3
12	4220322-01		SPACER, LOCK SPRING		1
13	4240022-01		GEAR, AZIMUTH		3
14	4290936-01		ADAPTER, 1/2 INCH TAPE		1
15	4350345-01		SCREW, HEAD RACKING		3
16	4350514-01		HEAD STACK ASSY, 2 TRACK, 1/2 INCH PLAY		1
17	4350515-01		HEAD STACK ASSY, 2 TRACK, 1/2 INCH RECORD		1
18	4350516-01		HEAD STACK ASSY, 2 TRACK, 1/2 INCH ERASE		1
19	4600092-01		SHIELD, HEADS BOTTOM		1
20	4600093-01		SHIELDS, HEADS		1
21	6000035-02		LABEL, IDENTIFICATION		1
22					
23					
24					
25					
26					
27	087-514		GREASE,MOLYLUBE "G" PASTE		A/R
28	280-366		SPACER, PLAIN, .18 O.D. X .18 LG		2
29	352-228		SPRING, COMPRESSION ASSOC. CO360-045-1000M		1
30	352-443		SPRING, COMPRESSION, LEE LC-024B-1-MW		6
31	430-152		RING, RETAINING, TRUARC # 5133-12		6
32	470-009		SCREW, CAP, HEX SOC #4-40X5/16		4
33	470-011		SCREW, CAP, HEX SOC #4-40X7/16		4
34	470-136		SCREW, CAP, HEX SOC #4-40X7/8		1
35	470-643		SCREW, CAP BUTTON HD 4-40X3/4		1
36	501-751		WASHER, FLAT, #4, FIBER		1
37	502-002		WASHER, SPRING #4		9

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA | CODE IDENT NO 92752 | LIST OF MATERIALS | LM- 4020463 SHEET 2 | REV —

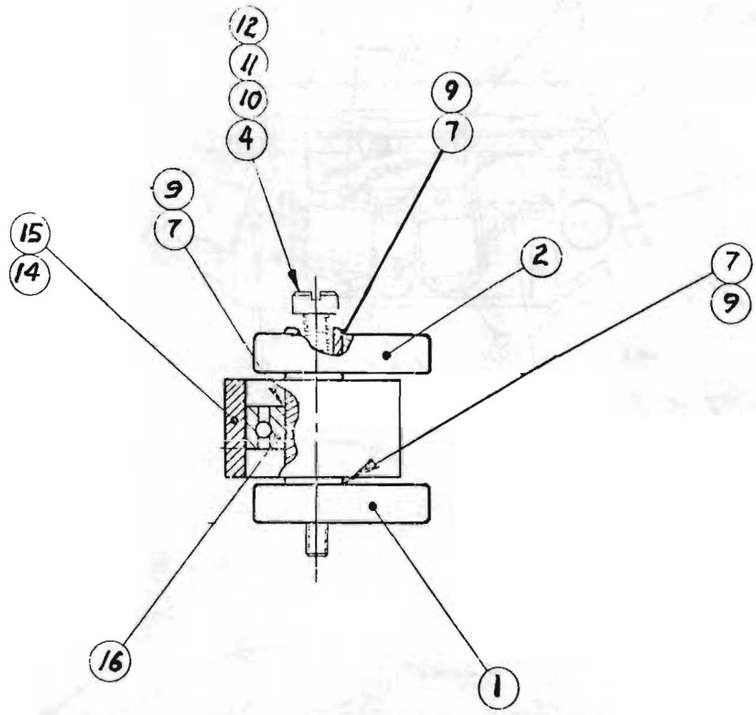
ITEM NO.	PART NUMBER		DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER 01
38	502-389		WASHER, FLAT #4		1

1 INDICATED COMPONENT IS AN ACCESSORY AND WILL BE ADDED IN THE SYSTEM AS DIRECTED BY THE SALES ORDER



SECTION A-A SCALE: 2:1
TAPE HEAD MOUNTING DETAIL 3 PLACES

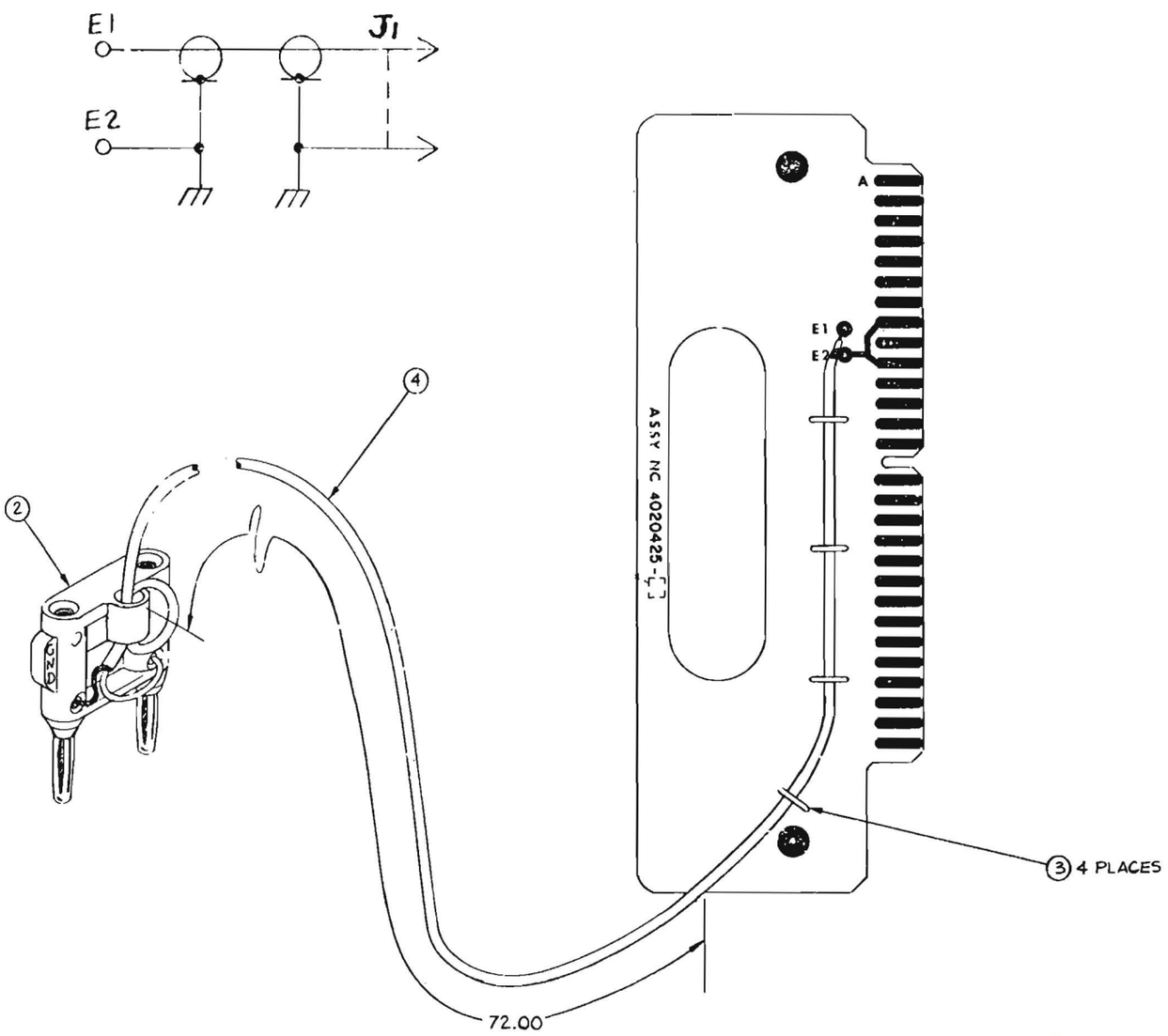
Assembly No. 4020463. Head Assembly, Two Track, 1/2 inch



AD	AC	AB	AA	ITEM NO.	PART NUMBER	DESCRIPTION
1	1			16	4200088-02	BEARING, BALL, (ABEC 1. R4)
–	1			15	4250096-02	RING, RUBBER COATED
1	–			14	4250226-02	RING, TAPE GUIDE
–	–			13	4200088-01	BEARING, BALL, ABEC 1, R-4
1	1	1	1	12	4400272-01	SCREW, 1/2" TAPE GUIDE
1	1	1	1	11	352-443	SPRING, COMPRESSION
1	1	1	1	10	430-374	RING, RETAINING
AR	AR	AR	AR	9	932-044	PLASTIC, LIQUID, EPOXY, (HYSOL C9-4210)
AR	AR	AR	AR	8	018-450	ADHESIVE, LOCTITE
AR	AR	AR	AR	7	018-290	PLASTIC, LIQUID, CATALYST, (HYSOL H2-3561)
–	–	1	1	6	4250226-01	RING, RUBBER COATED
–	–	1	1	5	4250096-01	RING, TAPE GUIDE
1	1	1	1	4	4210346-01	SHAFT, TAPE GUIDE
–	–	1	1	3	4200081-01	BEARING BALL, ABEC 1, R-4
1	1	1	1	2	4100083-01	CAP, TAPE GUIDE
1	1	1	1	1	4100082-01	CAP, TAPE GUIDE

PARTS LIST

Assembly No. 4041240. Tape Guide Assembly, 1/2 inch, Supply, Takeup



AR	4	613-040	CABLE, SHIELDED & JKTD, SINGLE GA, 1 COND #26	
4	3	302-395	STRAP, CABLE MOLDED	
1	2	140-095	CONNECTOR, SIG CIR, JACK, DUAL TIP	J1
1	1			
-01	ITEM NO	PART NUMBER	DESCRIPTION	REF DES

PARTS LIST

Assembly No. 4020425. Input/Output Level Set

4020428-02 INPUT/OUTPUT MODULE COVER KIT REV. B
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1	4290956-02	COVER, I/O MAIN FRAME		1	-
2	4290956-04	COVER, I/O MAIN FRAME		-	1
3					
4					
5	476-010	SCREW, SELF TAP, .188 6/20		8	9

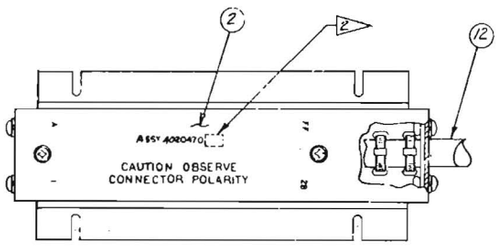
4020441-01 CAPSTAN SERVO INTERCHANGE KIT REV. –
NEXT HIGHER ASSEMBLY 4010294,4010295,
4010296,4010297

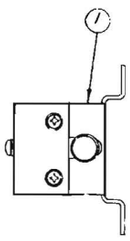
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4050860-01	PWA, CAPSTAN SERVO		1
2	4050862-01	PWA, CAPSTAN TACH L.E.D.		1
3	066-830	RESISTOR 10K OHM		2
4	066-689	RESISTOR 2.2K OHM		2
5	4890411-01	INSTRUCTION SHEET		1

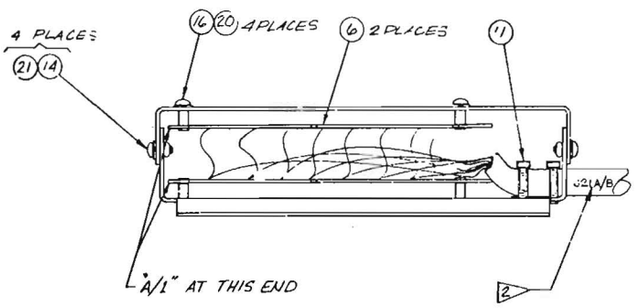
4020470-01 FOUR-WAY EXTENSION ACCESSORY CONNECTOR ASSEMBLY REV. –

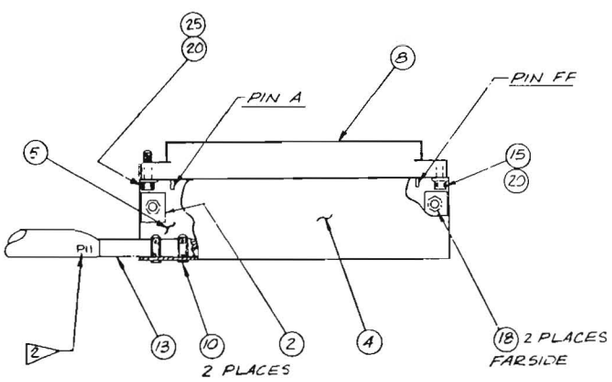
NEXT HIGHER ASSEMBLY 4010294,4010295, 4010296,4010297

ITEM NO.	PART NUMBER	D	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	4291056-01		BASE, ACCESSORY CONNEC. EXTENSION-FOUR-WAY	J21A/J21B	1
2	4291064-01		COVER, ACCESSORY CONNECTOR EXTENSION		1
3					
4	4260574-01		BRACKET, ACCESSORY CONNECTOR		1
5	4290958-01		COVER, CONNECTOR		1
6					
7					
8	143-804		CONNECTOR, PCB, 56 PIN	P11	1
9					
10	302-379		TIE-WRAP		3
11	302-388		TIE-WRAP		2
12	600-057		SLEEVING, VINYL, 500		A/R
13			SLEEVING, SHRINK, CLEAR		A/R
14	475-058		SCREW, PAN HEAD, #6-32 X .375		4
15	470-008		SCREW, CAP, SKT.HEAD,#4-40 X .250		1
16	471-060		SCREW, PAN HEAD, #4-40 X .250		4
17	471-062		SCREW, PAN HEAD, #4-40 X .375		2
18	476-998		SCREW, SHEET METAL, #6-20 X .250		2
19	502-454		WASHER, FLAT #4		4
20	502-002		LOCK WASHER, #4		7
21	502-003		LOCK WASHER #6		4
22	496-004		NUT, HEX HEAD #4		2
23	490-011		NUT, WELD, #6-32		4
24			WIRE, INSULATED, 24 AWG		A/R
25	470-012		SCREW, CAP, SKT HEAD, #4-40 X .500		1









NOTES:

1. PART NO. IS 4020470-01.
2. MARK DASH NO. AND CABLE REFERENCE DESIGNATIONS PER BDI-1.

Assembly No. 4020470. Four-Way Extension Accessory Connector

APPENDIX A
INTEGRATED CIRCUITS

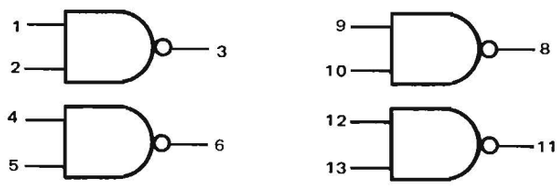
Table A-1. Integrated Circuit Ampex Part Number

AMPEX PART NO.	MANUFACTURER'S PART NO.	MANUFACTURER	PAGE NO.
586-075	MC7400	Motorola	A-1
586-076	SN7410N	Texas Instruments	A-1
586-077	SN7420N	Texas Instruments	A-1
586-078	SN7430N	Texas Instruments	A-2
586-108	SN7474	Texas Instruments	A-2
586-109	MC7402	Motorola	A-2
586-116	SN7473	Texas Instruments	A-3
586-248	MC7490	Motorola	A-4
586-269	FC741HC	Fairchild	A-5
586-276	CA3046	RCA	A-5
586-282	MC1439G	Motorola	A-5
586-303	FC9328DC	Fairchild	A-6
586-321 See 586-449			A-8
586-325	SN7405N	Texas Instruments	A-6
586-326	SN7404	Texas Instruments	A-7
586-327	SN74H11	Texas Instruments	A-7
586-423	MC7442	Motorola	A-8
586-449	SN72723J	Texas Instruments	A-8
586-450	SN74164	Texas Instruments	A-9
586-554	SN7483N	Texas Instruments	A-9
586-703	SN74151N	Texas Instruments	A-10
586-705	SN7486	Texas Instruments	A-10
586-713	FC7407PC	Fairchild	A-10
586-735	MC74150	Motorola	A-11
586-759	SN7408N	Texas Instruments	A-11
586-784	SN7438N	Texas Instruments	A-12
586-785	SN7595N	Texas Instruments	A-12
586-890	SN7417N	Texas Instruments	A-13
586-903	FC74157PC	Fairchild	A-13
586-905	SN72558P	Texas Instruments	A-14
586-906	SN74191	Texas Instruments	A-15
586-915	SN7412	Texas Instruments	A-16
586-918	SN7432	Texas Instruments	A-16
586-923	SN74163	Texas Instruments	A-17
586-925	SN74175	Texas Instruments	A-17
586-948	SN74153N	Texas Instruments	A-18
587-026	LM311H	National Semiconductor	A-19

Table A-1. Integrated Circuit Ampex Part Number (Continued)

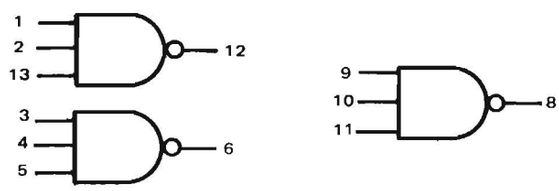
AMPEX PART NO.	MANUFACTURER'S PART NO.	MANUFACTURER	PAGE NO.
587-051	SN7425N	Texas Instruments	A-19
587-084	SN7492N	Texas Instruments	A-20
587-144	FC9602PC	Fairchild	A-21
587-266	SN74279	Texas Instruments	A-22
587-278	SN74S85N	Texas Instruments	A-22
587-291	NE555V	Signetics	A-23
587-319	CD4011AE	RCA	A-24
587-410	SN74LS139	Texas Instruments	A-24
587-416	FC9600PC	Fairchild	A-25
587-428	CD4046AE	RCA	A-26
587-431	SN74221	Texas Instruments	A-27
587-433	78M05	National Semiconductor	A-27
587-434	AY-5-4007D	General Instruments	A-28
587-447	CD4007AE	RCA	A-28
587-458	LM324	National Semiconductor	A-29
587-478	LM318H	National Semiconductor	A-29
587-505 See 586-327			A-7
587-543	SN7426N	Texas Instruments	A-30
587-544	SN7447N	Texas Instruments	A-30
587-635 See 586-327			A-7
587-656 See 587-478			A-29
587-677	CD4024AE	RCA	A-31
587-701	4194TK	Raytheon	A-31
587-714	LM3900N	National Semiconductor	A-32
587-755 See 587-278			A-22
587-761	SN74393N	Texas Instruments	A-32
587-766 See 586-906			A-15
587-772	SN74LS161	Texas Instruments	A-33
587-773 See 586-923			A-17
587-797	SN74LS253	Texas Instruments	A-33
587-814	SN74LS283N	Texas Instruments	A-34
587-858	CD4069	RCA	A-34
587-907	CD4082	RCA	A-35
587-960	CD4019AE	RCA	A-35
589-238	74LS293	Texas Instruments	A-36
589-254	NE556A	Signetics	A-36
589-336	F4556	Fairchild	A-37
589-347	2101-A2	Advanced Micro	A-37
589-452	DG305	Siliconix	A-38

MOTOROLA MC 7400	AMPEX 586-075	QUAD 2-INPUT NAND GATE



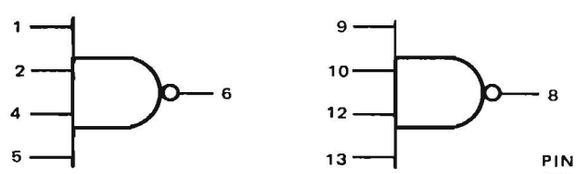
PIN 7 = GND
PIN 14 = V_{cc} (+5V)
3 = $\overline{1.2}$

TEXAS INSTRUMENTS SN 7410 N	AMPEX 586-076	3-INPUT NAND GATE



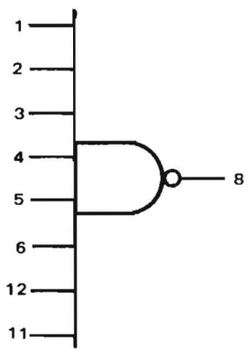
PIN 7 = GND
PIN 14 = V_{cc}
12 = $\overline{1.2.13}$

TEXAS INSTRUMENTS SN 7420 N	AMPEX 586-077	4-INPUT NAND GATE



PIN 7 = GND
PIN 14 = V_{cc}
6 = $\overline{1.2.4.5}$

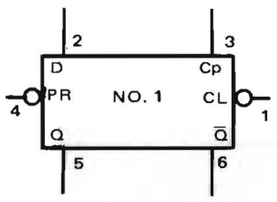
TEXAS INSTRUMENTS SN 7430 N	AMPEX 586-078	8-INPUT NAND GATE

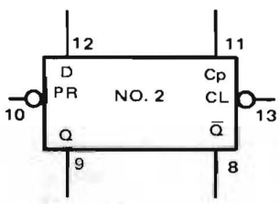


PIN 7 = GND
PIN 14 = V_{cc}

$8 = \overline{(1)(2)(3)(4)(5)(6)(11)(12)}$

TEXAS INSTRUMENTS SN 7474	AMPEX 586-108	DUAL D-TYPE EDGE- TRIGGERED FLIP-FLOP





PIN 7 = GND
PIN 14 = V_{cc}

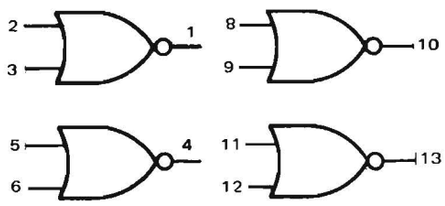
PR = PRESET
CL = CLEAR
Cp = CLOCK

t_n D	$t_n + 1$ Q
L	L
H	H

PR	CL	Q
L	H	H
H	L	L
L	L	ND

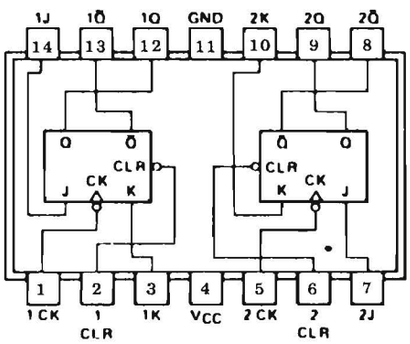
$t_n + 1$ IS TIME AFTER POSITIVE TRANSITION OF CLOCK

MOTOROLA MC 7402	AMPEX 586-109	QUAD 2-INPUT NOR GATE



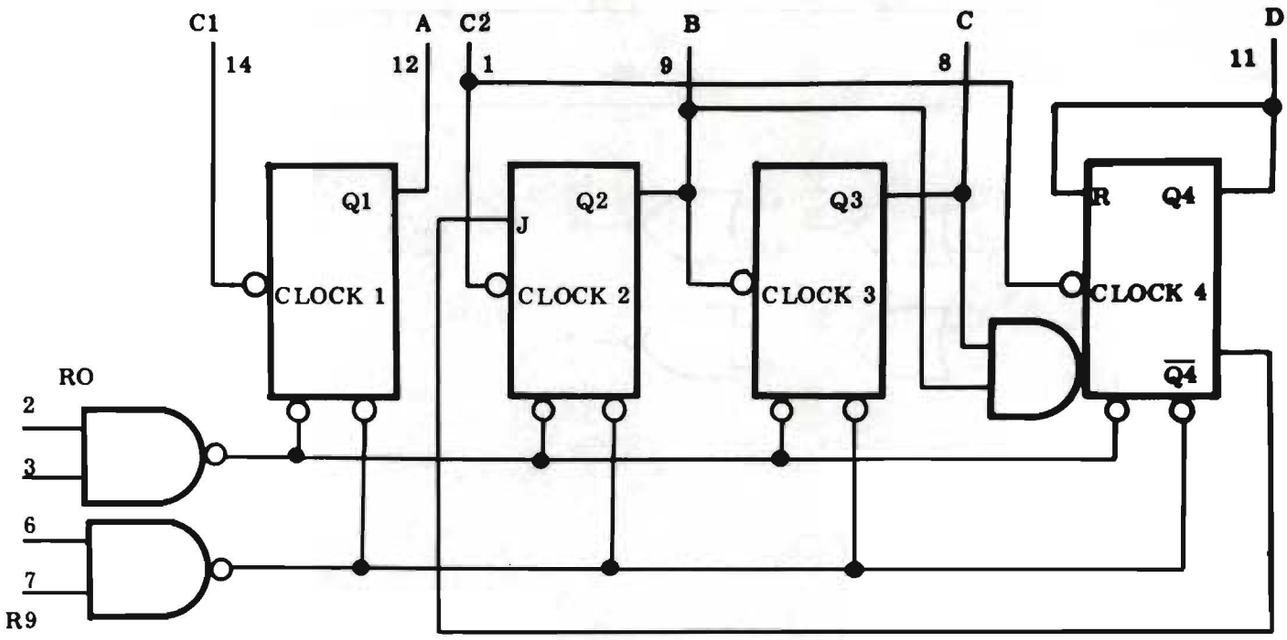
1 = $\overline{2+3}$
PIN 7 = GND
PIN 14 = V_{CC} (5V)

TEXAS INST SN7473	AMPEX 586-116	DUAL J-K FLIP-FLOPS WITH CLEAR



FUNCTION TABLE

INPUTS				OUTPUTS	
CLEAR	CLOCK	J	K	Q	$\bar{Q}$
L	X	X	X	L	H
H	⎍	L	L	Q_0	$\bar{Q}_0$
H	⎍	H	L	H	L
H	⎍	L	H	L	H
H	⎍	H	H	TOGGLE	



Clock 1 operates as a divide-by-two.

Clocks 2, 3, and 4 operate as a divide-by-five.

If A and C2 are connected, operates as a divide-by-ten.

May be reset to 0 (R0) or BCD 9 (R9).

RESET/COUNT TABLE

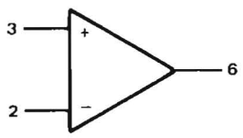
RO		R9		OUTPUT			
PIN 2	PIN 3	PIN 6	PIN 7	D	C	B	A
1	1	0	X	0	0	0	0
1	1	X	0	0	0	0	0
X	X	1	1	1	0	0	1
X	0	X	0	COUNT			
0	X	0	X	COUNT			
0	X	X	0	COUNT			
X	0	0	X	COUNT			

X= DON'T CARE.

COUNT SEQUENCE

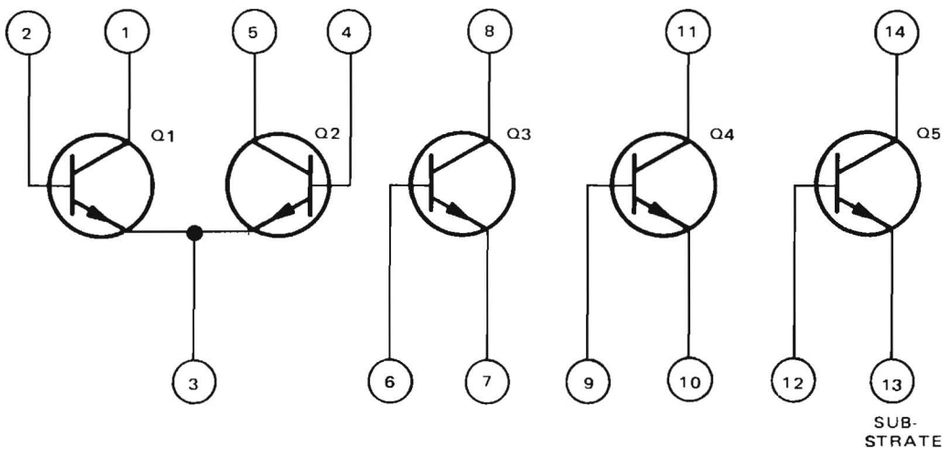
count	OUTPUT			
	D	C	B	A
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1

FAIRCHILD FC 741 HC	AMPEX 586-269	OPERATIONAL AMPLIFIER

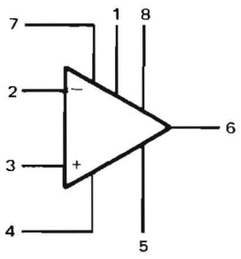


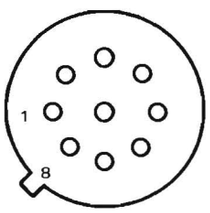
PIN 1 = OFFSET NULL
PIN 4 = −V (CASE)
PIN 5 = OFFSET NULL
PIN 7 = +V
PIN 8 = NC

RCA CA 3046	AMPEX 586-276	GENERAL PURPOSE TRANSISTOR ARRAY



MOTOROLA MC 1439 G	AMPEX 586-282	OPERATIONAL AMPLIFIER

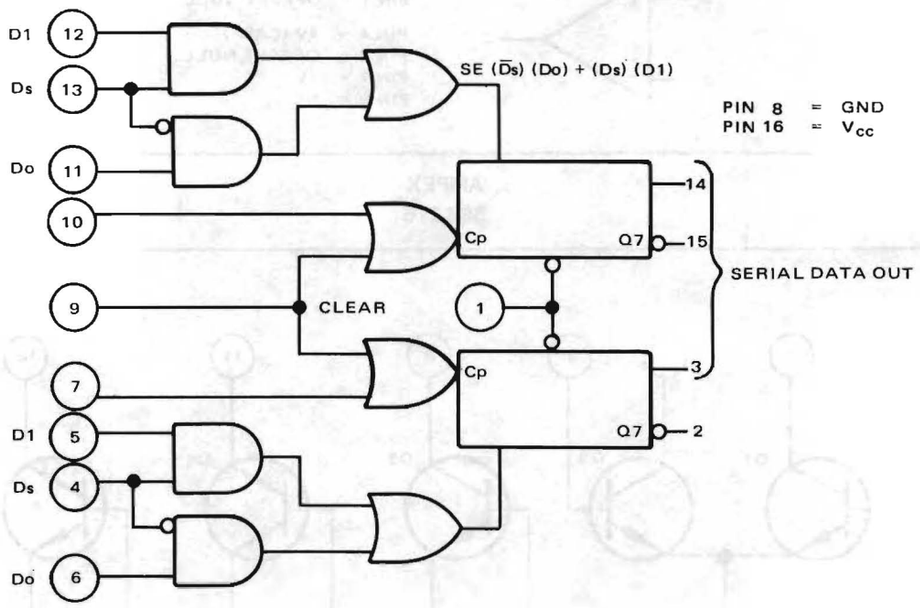




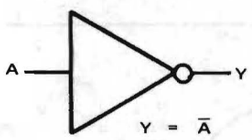
G SUFFIX METAL PACKAGE
CASE 601, TO-99

PIN 7 = V+
PIN 4 = V− (CASE)
PIN 2 = INVERT IN
PIN 3 = NON-INVERT IN
PIN 1,8 = INPUT LAG — FREQ. COMP.
PIN 5 = OUTPUT LAG
PIN 6 = OUTPUT

FAIRCHILD FC 9328 DC	AMPEX 586-303	DUAL 8-BIT SHIFT REGISTER



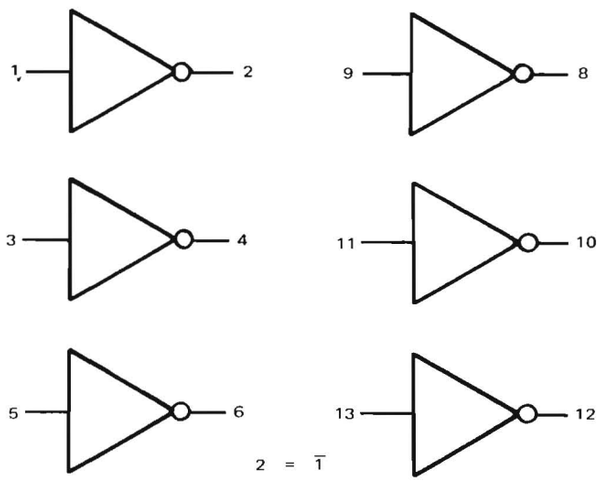
TEXAS INSTRUMENTS SN 7405 N	AMPEX 586-325	HEX INVERTER OPEN COLLECTOR



A	1	3	5	9	11	13
Y	2	4	6	8	10	12

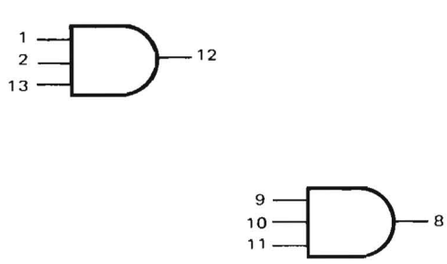
PIN 7 = GND
PIN 14 = V_{cc}

MOTOROLA MC 7404	AMPEX 586-326	HEX INVERTER



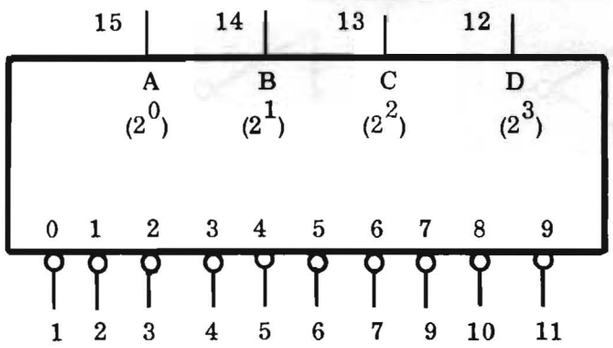
PIN 7 = GND
PIN 14 = V_{cc} (5V)

TEXAS INSTRUMENTS SN 74H11	AMPEX 586-327	TRIPLE 3-INPUT AND GATE



PIN 7 = GND
PIN 14 = +5V(V_{cc})

TEXAS INST/MOTOROLA	AMPEX	
MC 7442	**586-423**	
SN7442	586-423	BCD TO DECIMAL

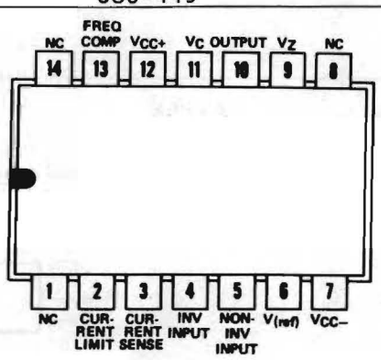


Vcc 16
Gnd 8

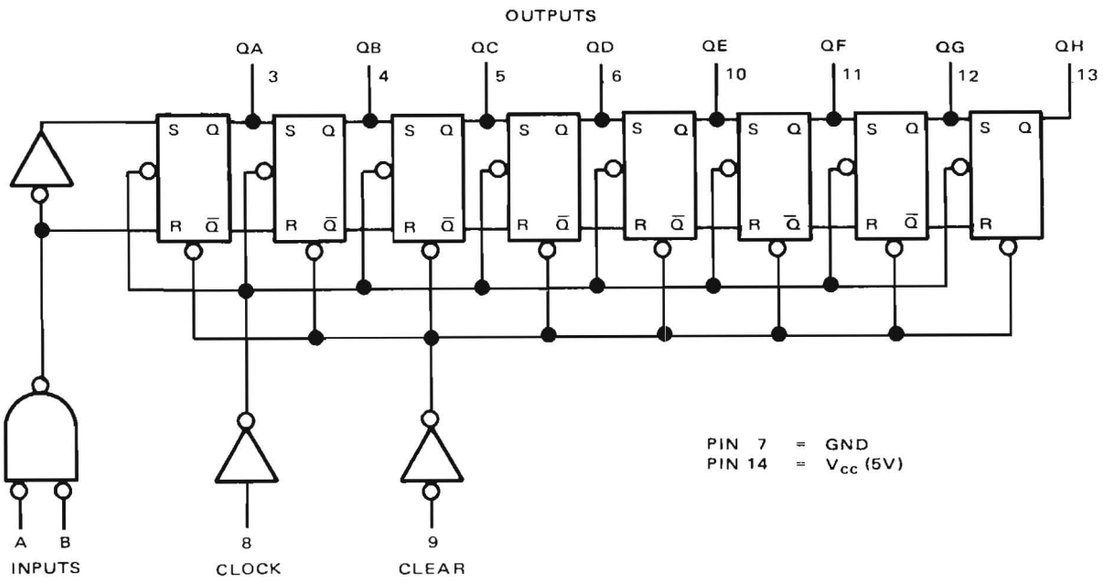
0 = $\overline{A}$ $\overline{B}$ $\overline{C}$ $\overline{D}$
1 = A $\overline{B}$ $\overline{C}$ $\overline{D}$
2 = $\overline{A}$ B $\overline{C}$ $\overline{D}$
3 = A B $\overline{C}$ $\overline{D}$
ETC

INPUT NUMBERS GREATER THAN "9" WILL PRODUCE ALL HIGHS AT OUTPUTS.

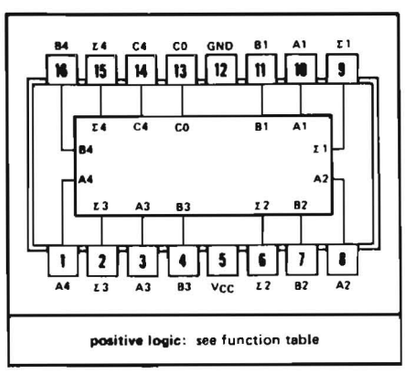
TEXAS INST	AMPEX	PRECISION VOLTAGE REGULATORS
SN72723J	586-449	



TEXAS INSTRUMENTS SN 74164	AMPEX 586-450	8-BIT PARALLEL OUT SERIAL SHIFT REGISTER



TEXAS INST SN7483N	AMPEX 586-554	4-BIT BINARY FULL ADDERS WITH FAST CARRY

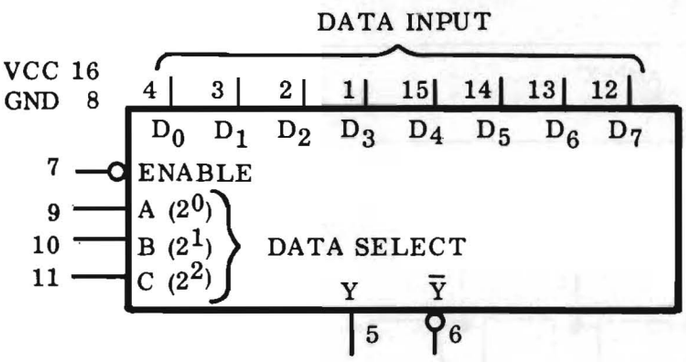


FUNCTION TABLE

INPUT				OUTPUT: WHEN C0 = L			OUTPUT: WHEN C0 = H		
				WHEN C2 = L			WHEN C2 = H		
A1 / A4	B1 / Σ3	A2 / A3	B2 / B4	Σ1 / Σ3	Σ2 / Σ4	C2 / C0	Σ1 / Σ3	Σ2 / Σ4	C2 / C0
L	L	L	L	L	L	L	H	L	L
H	L	L	L	H	L	L	L	H	L
L	H	L	L	H	L	L	L	H	L
H	H	L	L	L	H	L	H	H	L
L	L	H	L	L	H	L	H	H	L
H	L	H	L	H	H	L	L	L	H
L	H	H	L	H	H	L	L	L	H
H	H	H	L	L	L	H	H	L	H
L	L	L	H	L	H	L	H	H	L
H	L	L	H	H	H	L	L	L	H
L	H	L	H	H	H	L	L	L	H
H	H	L	H	L	L	H	H	L	H
L	L	H	H	L	L	H	H	L	H
H	L	H	H	H	L	H	L	H	H
L	H	H	H	H	L	H	L	H	H
H	H	H	H	L	H	H	H	H	H

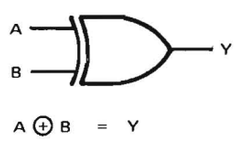
H = high level, L = low level

TEXAS INSTR	AMPEX	
SN 74151N	586-703	DATA SELECTOR (MULTIPLEXER)
SN 74LS151N	587-950	



1. ENABLE (PIN 7) HIGH, Y LOW, Y HIGH.
2. ENABLE LOW, OUTPUT Y FOLLOWS DATA SELECTED (INPUT) BY BINARY NUMBER AT DATA SELECT. PIN 6 (Y) WILL BE COMPLEMENT OF SELECTED DATA INPUT.

TEXAS INSTRUMENTS	AMPEX	QUAD
SN 7486	586-705	EXCLUSIVE OR GATE

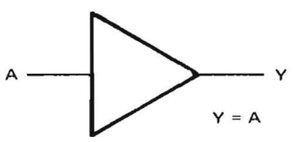


A ⊕ B = Y

A	B	Y
1	2	3
4	5	6
9	10	8
12	13	11

PIN 7 = GND
PIN 14 = V_{cc}

FAIRCHILD	AMPEX	HEX BUFFER/DRIVER WITH OPEN-COLLECTOR HIGH-VOLTAGE OUTPUT
FC 7407 PC	586-713	

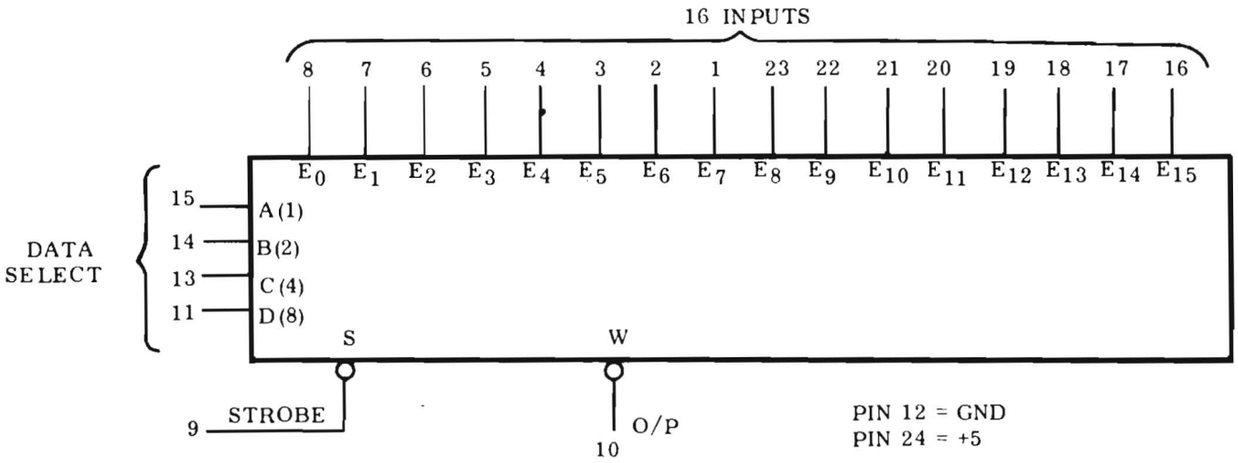


HEX BUFFER

PIN 7 = GND
PIN 14 = V_{cc}

A	Y
1	2
3	4
5	6
9	8
11	10
13	12

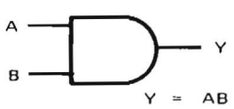
TI/MOTOROLA	AMPEX	
SN74150N	586-735	
MC74150	586-735	16 INPUT DATA MULTIPLEXER



DATA SELECT, SELECTS ONE OF 16 INPUTS, THE SIGNAL ON THIS INPUT THEN APPEARS ON THE OUTPUT BUT INVERTED.

STROBE, STROBE "H" OUTPUT W IS HIGH.
STROBE "L" OUTPUT IS ACTIVE AND WILL INVERT THE INPUT SELECTED.

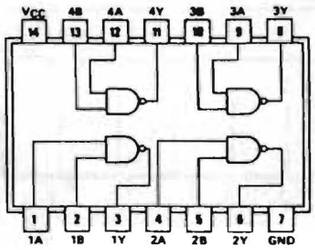
TEXAS INSTRUMENTS	AMPEX	QUAD 2-INPUT
SN 7408 N	586-759	AND GATE



A	1	4	9	12
B	2	5	10	13
Y	3	6	8	11

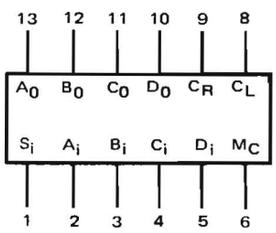
PIN 7 = GND
PIN 14 = V_{cc}

TEXAS INST SN7438N	AMPEX 586-784	QUADRUPLE 2-INPUT POSITIVE-NAND BUFFERS WITH OPEN-COLLECTOR OUTPUTS



positive logic:
$Y = \overline{AB}$

TEXAS INSTRUMENTS SN 7495 N	AMPEX 586-785	4-BIT RIGHT SHIFT/ LEFT SHIFT REGISTER



PIN 14 = +5V
PIN 7 = GND



S_i = SERIAL IN

A_i, B_i, C_i, D_i = PARALLEL IN
A_0, B_0, C_0, D_0 = PARALLEL OUT

C_R = CLOCK RIGHT
C_L = CLOCK LEFT

M_c = MODE CONTROL:

L = RIGHT SHIFT
H = LEFT SHIFT/PARALLEL LOAD

FUNCTION TABLE

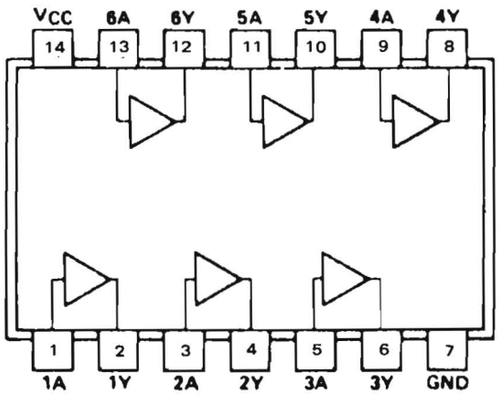
INPUTS								OUTPUTS			
MODE CONTROL	CLOCKS 2(L)	CLOCKS 1(R)↑	SERIAL	PARALLEL A	PARALLEL B	PARALLEL C	PARALLEL D	Q_A	Q_B	Q_C	Q_D
H	H	X	X	X	X	X	X	Q_{A0}	Q_{B0}	Q_{C0}	Q_{D0}
H	↓	X	X	a	b	c	d	a	b	c	d
H	↓	X	X	Q_B↑	Q_C↑	Q_D↑	d	Q_{Bn}	Q_{Cn}	Q_{Dn}	d
L	L	H	X	X	X	X	X	Q_{A0}	Q_{B0}	Q_{C0}	Q_{D0}
L	X	↓	H	X	X	X	X	H	Q_{An}	Q_{Bn}	Q_{Cn}
L	X	↓	L	X	X	X	X	L	Q_{An}	Q_{Bn}	Q_{Cn}
↑	L	L	X	X	X	X	X	Q_{A0}	Q_{B0}	Q_{C0}	Q_{C0}
↓	L	L	X	X	X	X	X	Q_{A0}	Q_{B0}	Q_{C0}	Q_{D0}
↓	L	H	X	X	X	X	X	Q_{A0}	Q_{B0}	Q_{C0}	Q_{D0}
↑	H	L	X	X	X	X	X	Q_{A0}	Q_{B0}	Q_{C0}	Q_{D0}
↑	H	H	X	X	X	X	X	Q_{A0}	Q_{B0}	Q_{C0}	Q_{D0}

↑ SHIFTING LEFT REQUIRES EXTERNAL CONNECTION OF Q_B TO A, Q_C TO B, AND Q_D TO C. SERIAL DATA IS ENTERED AT INPUT D.

H = HIGH LEVEL (STEADY STATE), L = LOW LEVEL (STEADY STATE),
X = IRRELEVANT (ANY INPUT, INCLUDING TRANSITIONS)
↓ = TRANSITION FROM HIGH TO LOW LEVEL, ↑ = TRANSITION FROM LOW TO HIGH LEVEL
a, b, c, d = THE LEVEL OF STEADY-STATE INPUT AT INPUTS A, B, C, or D, RESPECTIVELY.
$Q_{A0}, Q_{B0}, Q_{C0}, Q_{D0}$ = THE LEVEL OF Q_A, Q_B, Q_C, OR Q_D, RESPECTIVELY, BEFORE THE INDICATED STEADY-STATE INPUT CONDITIONS WERE ESTABLISHED.

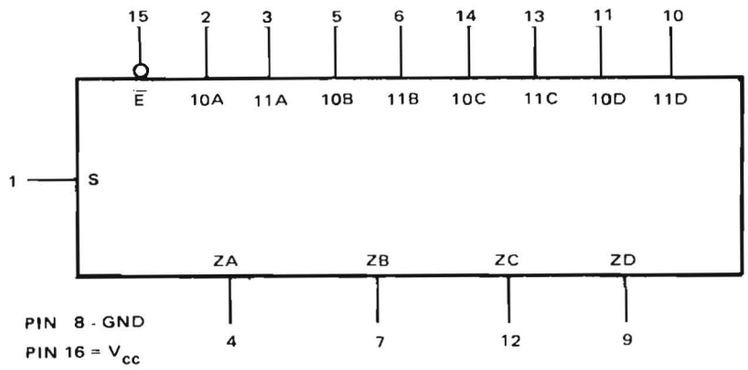
$Q_{An}, Q_{Bn}, Q_{Cn}, Q_{Dn}$ = THE LEVEL OF Q_A, Q_B, Q_C, OR Q_D, RESPECTIVELY, BEFORE THE MOST-RECENT ↓ TRANSITION OF THE CLOCK.

TEXAS INST	AMPEX	HEX BUFFERS/DRIVERS WITH
SN7417N	586-890	OPEN-COLLECTOR HIGH-VOLTAGE OUTPUTS



Positive Logic Y=A

FAIRCHILD	AMPEX	QUAD 2-INPUT
FC 74157 PC	586-903	MULTIPLEXER



TRUTH TABLE

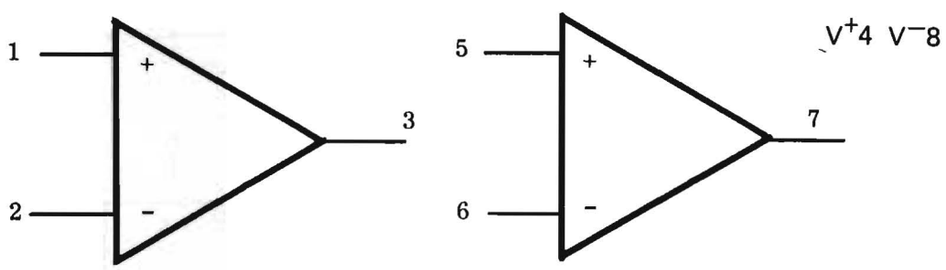
ENABLE	SELECT INPUT	INPUTS		OUTPUT
$\bar{E}$	S	I_{0X}	I_{1X}	Z_X
H	X	X	X	L
L	H	X	L	L
L	H	X	H	H
L	L	L	X	L
L	L	H	X	H

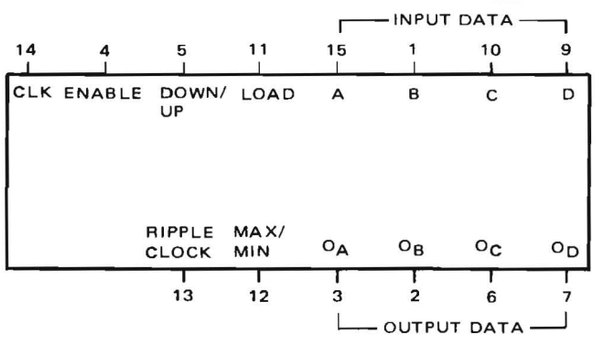
H = HIGH VOLTAGE LEVEL
L = LOW VOLTAGE LEVEL
X = EITHER HIGH OR LOW LOGIC LEVEL

OUTPUT LOGIC EQUATIONS ARE:

$Z_a = E \bullet (I_{1a} \bullet S + I_{0a} \bullet \bar{S})$ $Z_b = E \bullet (I_{1b} \bullet S + I_{0b} \bullet \bar{S})$
$Z_c = E \bullet (I_{1c} \bullet S + I_{0c} \bullet \bar{S})$ $Z_d = E \bullet (I_{1d} \bullet S + I_{0d} \bullet \bar{S})$

TEXAS INSTR SN 72558P	AMPEX 586-905	DUAL GENERAL PURPOSE OP. AMPL.



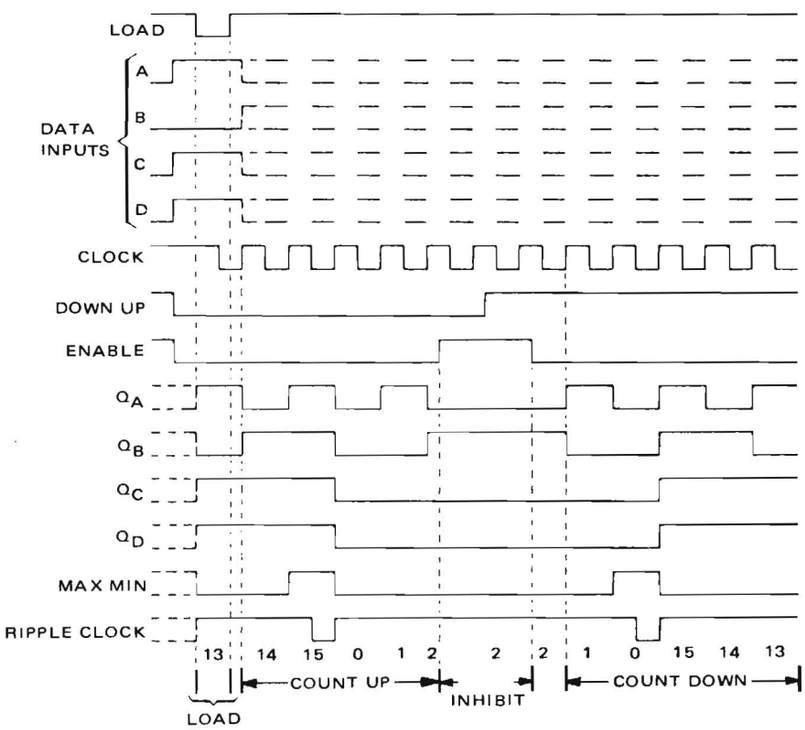


PIN 16 = +5V (V_{cc})
PIN 8 = GND
ASYNCHRONOUR INPUTS: LOW INPUT TO LOAD SETS O_A = A, O_B = B, O_C = C, AND O_D = D.

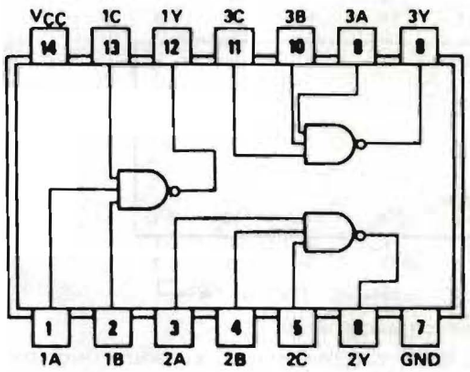
TYPICAL LOAD, COUNT, AND INHIBIT SEQUENCES

THE FOLLOWING SEQUENCE ILLUSTRATES LOGIC LEVELS AND FUNCTIONS.

1. LOAD (PRESET) TO BINARY THIRTEEN'
2. COUNT UP TO FOURTEEN, FIFTEEN (MAXIMUM), ZERO, ONE, AND TWO.
3. INHIBIT.
4. COUNT DOWN TO ONE, ZERO (MINIMUM), FIFTEEN, FOURTEEN, AND THIRTEEN.

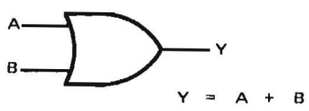


TEXAS INSTRUMENTS SN 7412	AMPEX 586-915	TRIPLE 3-INPUT POSITIVE-NAND GATES WITH OPEN-COLLECTOR OUTPUTS



SN5412 (J, W) **SN7412 (J, N)**
SN54LS12 (J, W) **SN74LS12 (J, N)**

TEXAS INSTRUMENTS SN 7432	AMPEX 586-918	OR GATE

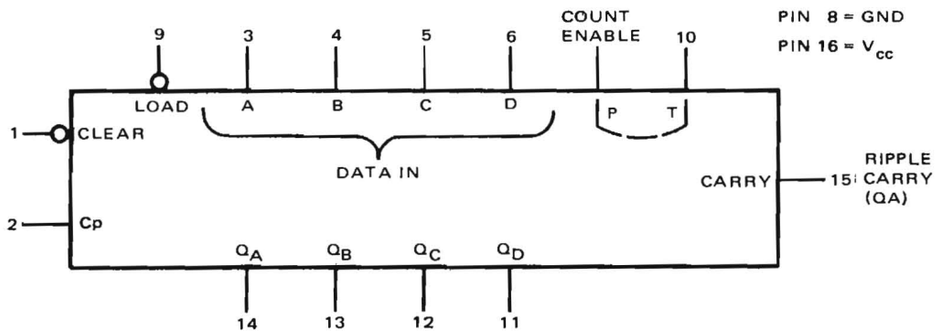


$Y = A + B$

A	B	Y
1	2	3
4	5	6
9	10	8
12	13	11

PIN 7 = GND
PIN 14 = V_{cc}
TOTEM OUTPUT

TEXAS INSTRUMENTS SN 74163	AMPEX 586-923	SYNCHRONOUS BINARY COUNTER



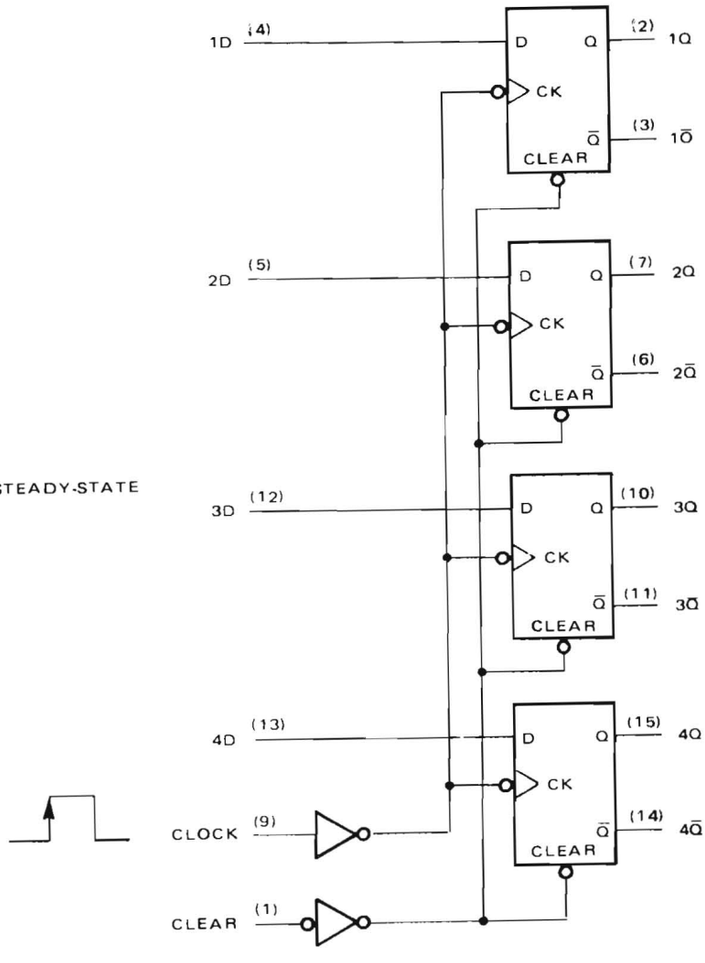
TEXAS INSTRUMENTS SN74175	AMPEX 586-925	QUAD D TYPE FLIP-FLOP (WITH COMMON CLOCK AND COMMON CLEAR)

PIN 16 = +5V (V_{cc})
PIN 8 = GND

FUNCTION TABLE
(EACH FLIP-FLOP)

INPUTS			OUTPUTS	
CLEAR	CLOCK	D	Q	$\bar{Q}$
L	X	X	L	H
H	↑	H	H	L
H	↑	L	L	H
H	L	X	Q_0	$\bar{Q}_0$

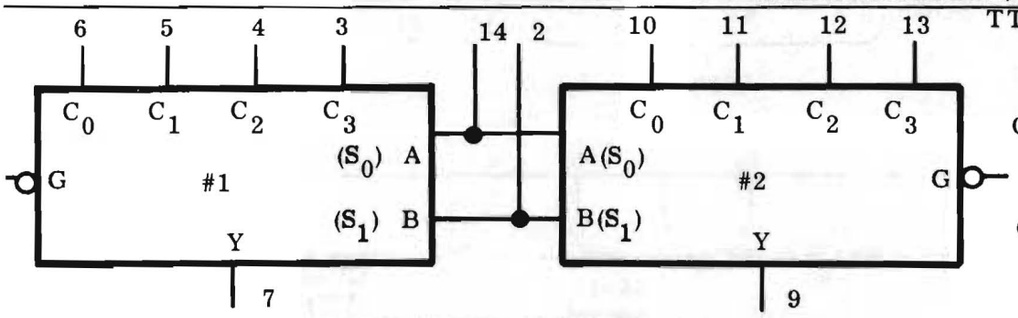
H = HIGH LEVEL (STEADY STATE)
L = LOW LEVEL (STEADY STATE)
X = IRRELEVANT
↑ = TRANSITION FROM LOW TO HIGH LEVEL
Q_0 = THE LEVEL OF Q BEFORE THE INDICATED STEADY-STATE INPUT CONDITIONS WERE ESTABLISHED.



TEXAS INSTR
SN 74153N

AMPEX
586-948

DUAL 4 LINE TO 1 LINE
DATA SELECTOR/MULTIPLEXER
TTL MSI



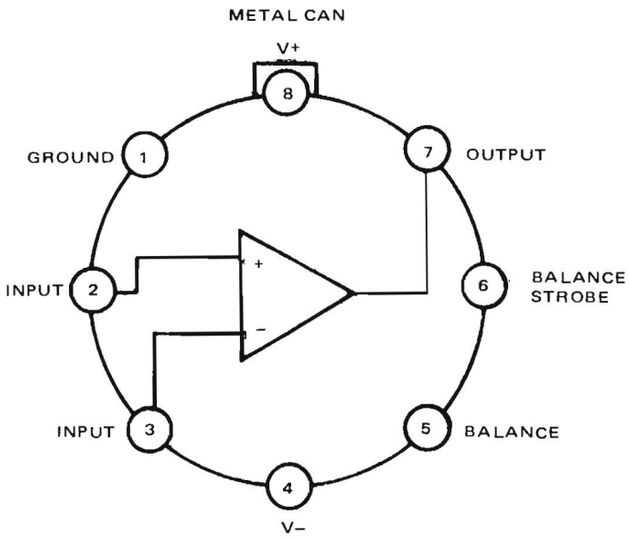
Vcc = 16
GND A

G low enables
H Y low

Y follows input selected by binary number at A(S0) and B(S1).

B	A	G	Y FOLLOWS
X	X	H	LOW
L	L	L	C0
L	H	L	C1
H	L	L	C2
H	H	L	C3

NATIONAL SEMICONDUCTOR LM 311 H	AMPEX 587-026	OPERATIONAL AMPLIFIER



TOP VIEW

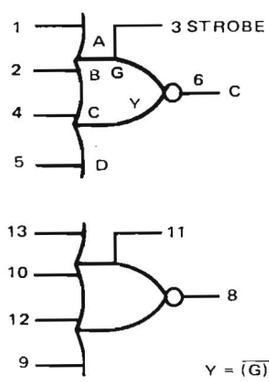
NOTE: PIN 4 CONNECTED TO CASE.

TEXAS INSTRUMENTS SN 7425N	AMPEX 587-051	DUAL 4-INPUT NOR GATE WITH STROBE

TRUTH TABLE

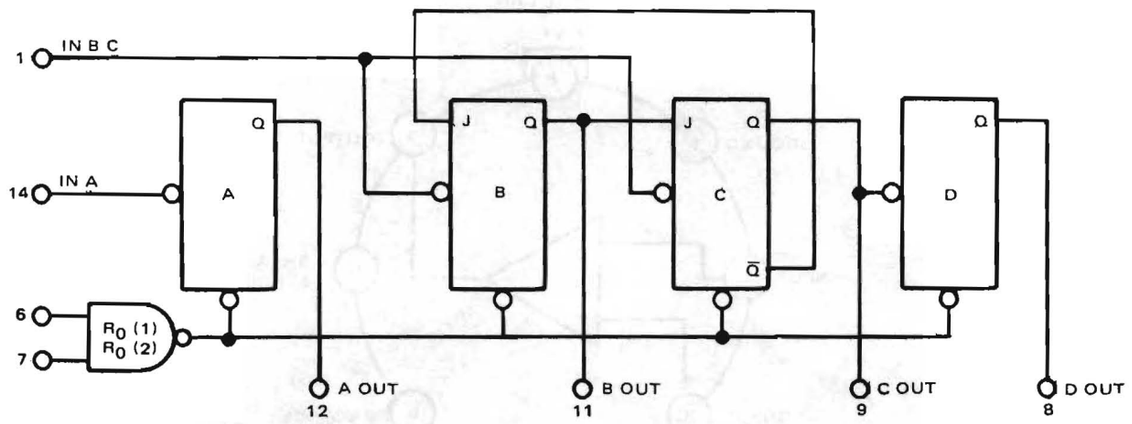
IN					OUT
A	B	C	D	G	Y
H	X	X	X	H	L
X	H	X	X	H	L
X	X	X	X	H	L
X	X	H	X	H	L
X	X	X	H	H	L
L	L	L	L	X	H
X	X	X	L	L	H

X = DON'T CARE



PIN 7 = GND
PIN 14 = V_{cc}

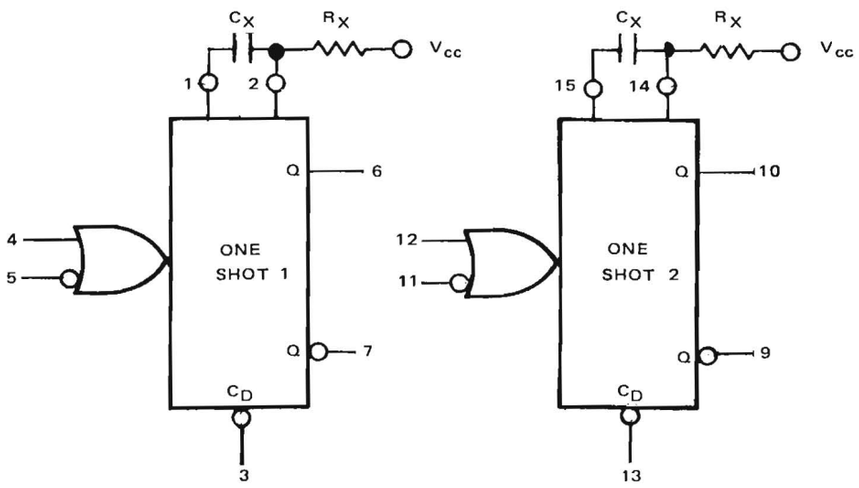
$Y = \overline{(G)(A+B+C+D)} = \overline{G} + \overline{A}\,\overline{B}\,\overline{C}\,\overline{D}$

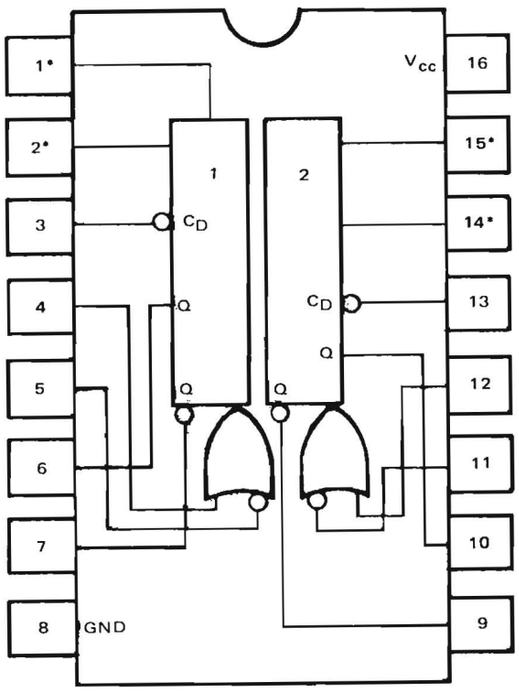


CT	D	C	B	A
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	1	0	0	0
7	1	0	0	1
8	1	0	1	0
9	1	0	1	1
10	1	1	0	0
11	1	1	0	1

(OUTPUT A TO B IN)

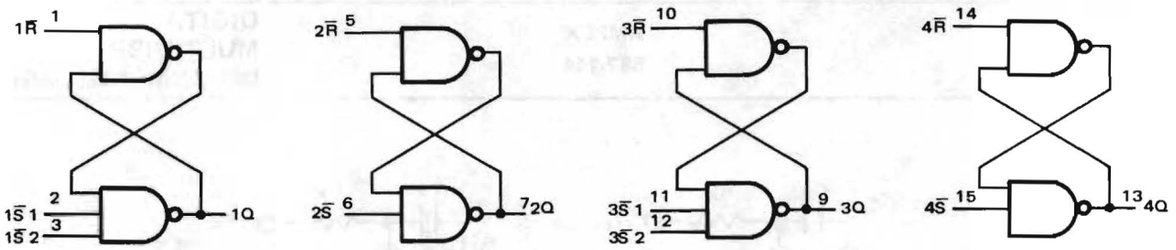
PIN 5 = V_{cc}
PIN 10 = GND





*PINS FOR EXTERNAL TIMING

QUAD $\overline{S}$ · $\overline{R}$ LATCHES



FUNCTION TABLE

INPUTS $\overline{S}$† $\overline{R}$	OUTPUT Q
H H	Q_0
L H	H
H L	L
L L	H*

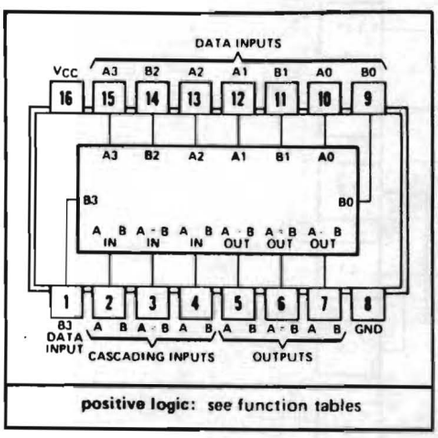
H = HIGH
L = LOW LEVEL
Q_0 = THE LEVEL OF Q BEFORE THE INDICATED INPUT CONDITIONS WERE ESTABLISHED.
*THIS OUTPUT LEVEL IS PSEUDO STABLE, THAT IS, IT MAY NOT PERSIST WHEN THE $\overline{S}$ AND $\overline{R}$ INPUTS RETURN TO THEIR INACTIVE (HIGH) LEVEL.
†FOR LATCHES WITH DOUBLE $\overline{S}$ INPUTS:
H = BOTH $\overline{S}$ INPUTS HIGH
L = ONE OR BOTH $\overline{S}$ INPUTS LOW

PIN 16 = +5V (V_{CC})
PIN 8 = GND

TEXAS INST
SN74S85N

AMPEX
587-278

4-BIT MAGNITUDE COMPARATOR



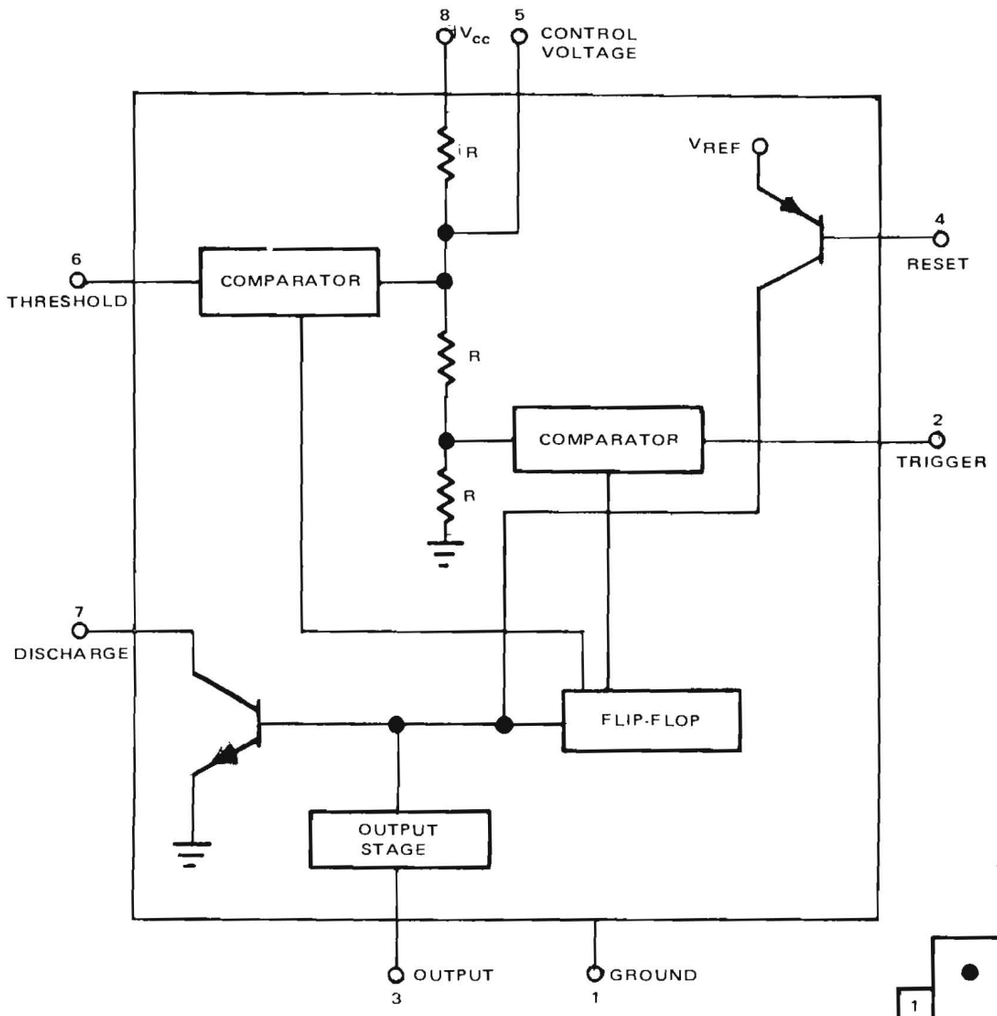
positive logic: see function tables

FUNCTION TABLES

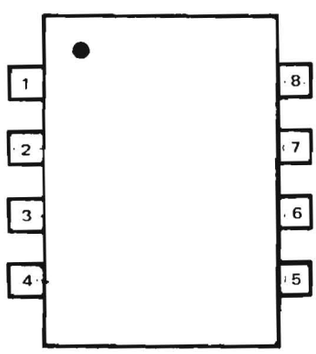
COMPARING INPUTS				CASCADING INPUTS			OUTPUTS		
A3, B3	A2, B2	A1, B1	A0, B0	A > B	A < B	A = B	A > B	A < B	A = B
A3 > B3	X	X	X	X	X	X	H	L	L
A3 < B3	X	X	X	X	X	X	L	H	L
A3 = B3	A2 > B2	X	X	X	X	X	H	L	L
A3 = B3	A2 < B2	X	X	X	X	X	L	H	L
A3 = B2	A2 = B2	A1 > B1	X	X	X	X	H	L	L
A3 = B3	A2 = B2	A1 < B1	X	X	X	X	L	H	L
A3 = B3	A2 = B2	A1 = B1	A0 > B0	X	X	X	H	L	L
A3 = B3	A2 = B2	A1 = B1	A0 < B0	X	X	X	L	H	L
A3 = B3	A2 = B2	A1 = B1	A0 = B0	H	L	L	H	L	L
A3 = B3	A2 = B2	A1 = B1	A0 = B0	L	H	L	L	H	L
A3 = B3	A2 = B2	A1 = B1	A0 = B0	L	L	H	L	L	H

'85, 'S85

A3 = B3	A2 = B2	A1 = B1	A0 = B0	X	X	H	L	L	H
A3 = B3	A2 = B2	A1 = B1	A0 = B0	H	H	L	L	L	L
A3 = B3	A2 = B2	A1 = B1	A0 = B0	L	L	L	H	H	L



V PACKAGE
(TOP VIEW)



1. GROUND
2. TRIGGER
3. OUTPUT
4. RESET
5. CONTROL VOLTAGE
6. THRESHOLD
7. DISCHARGE
8. V_{cc}

RCA	AMPEX	
4011PC CD 4011AE	587-909 587-319	2 INPUT NAND GATE

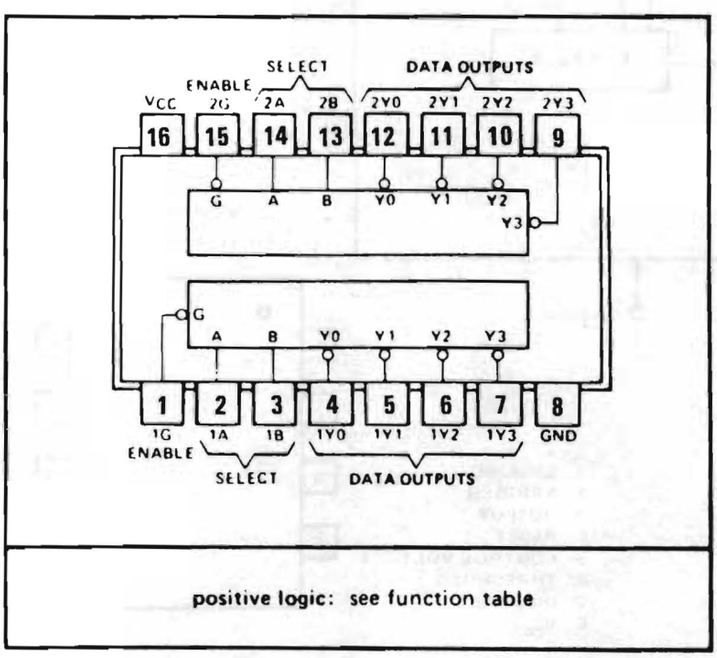


$X = \overline{AB}$

VDD 14
VSS 7

A	B	X
1	2	3
4	5	6
8	9	10
12	13	11

TEXAS INST	AMPEX	DECODER/DEMULTIPLEXERS
SN74LS139	587-410	

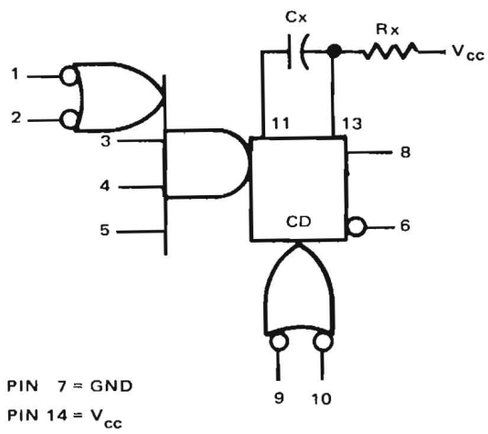


positive logic: see function table

FUNCTION TABLE

INPUTS			OUTPUTS			
ENABLE	SELECT					
G	B	A	Y0	Y1	Y2	Y3
H	X	X	H	H	H	H
L	L	L	L	H	H	H
L	L	H	H	L	H	H
L	H	L	H	H	L	H
L	H	H	H	H	H	L

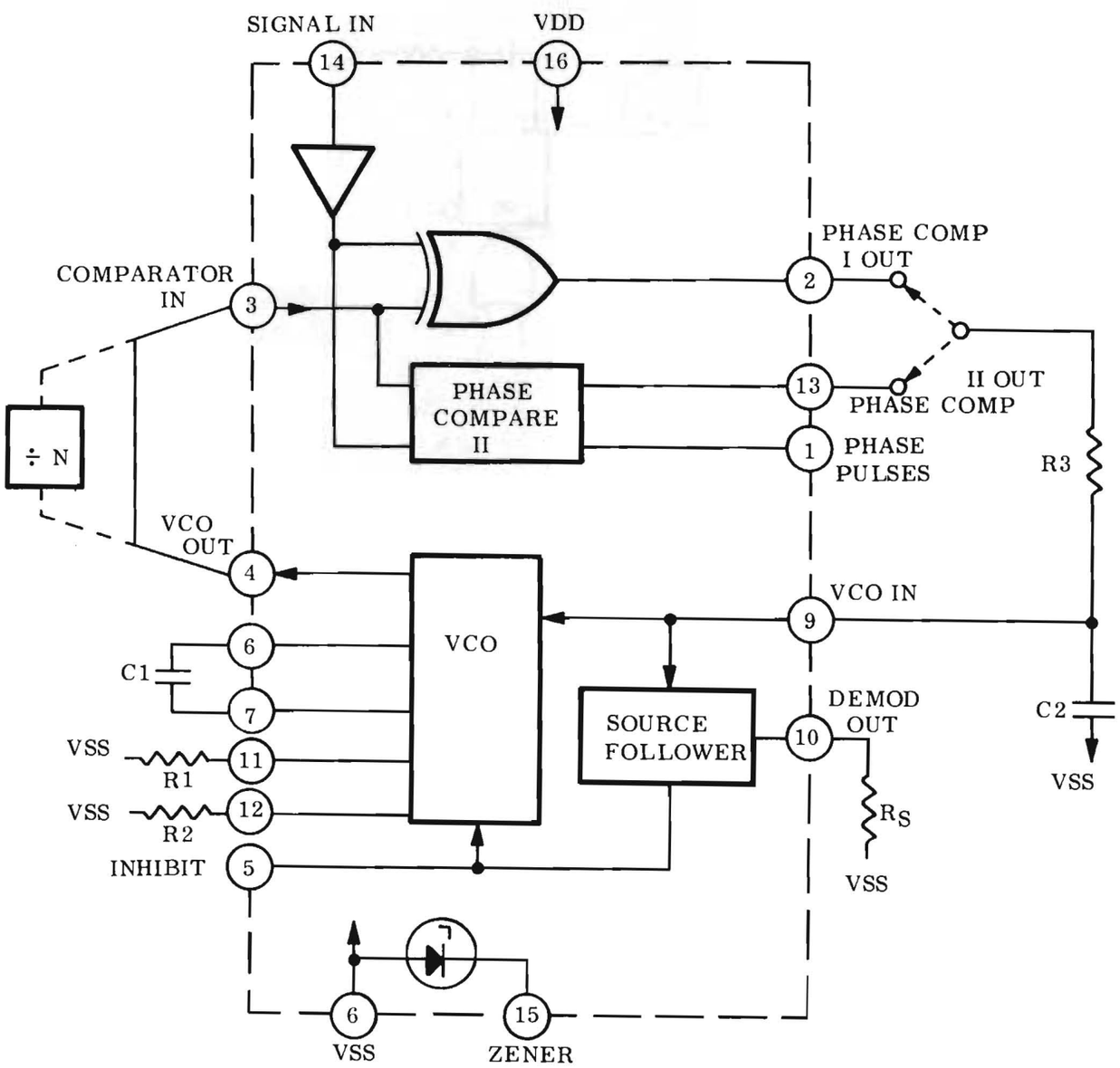
H = high level, L = low level, X = irrelevant



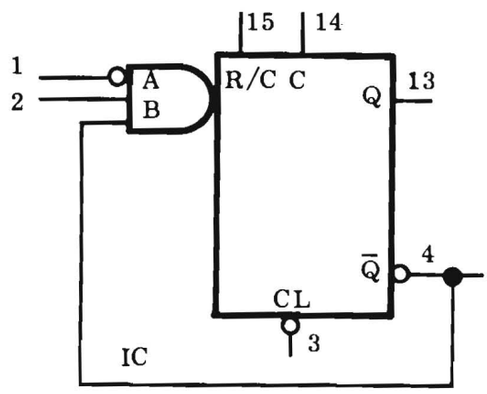
PIN 7 = GND

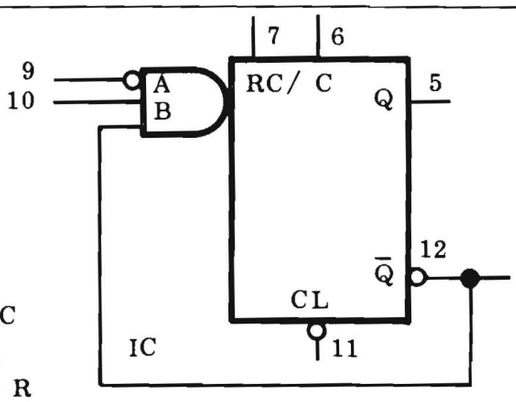
PIN 14 = V_{cc}

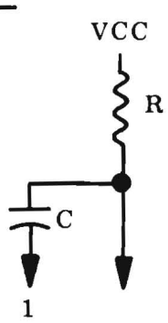
$$t = 0.32\ Rx\ Cx\ (1 + \frac{0.7}{Rx})$$


SIGNAL IN
14
VDD
16
PHASE COMP
I OUT
2
COMPARATOR
IN
3
PHASE
COMPARE
II
13
II OUT
PHASE COMP
÷ N
1
PHASE
PULSES
R3
VCO
OUT
4
VCO IN
9
VCO
6
C1
7
SOURCE
FOLLOWER
DEMOD
OUT
10
C2
VSS
VSS
11
R1
VSS
12
R2
R_S
INHIBIT
5
VSS
6
VSS
15
ZENER

TEXAS INST SN74221	AMPEX 587-431 587-537 589-377	NON-RETRIGGERABLE ONE SHOT SCHMITT TRIGGER INPUTS



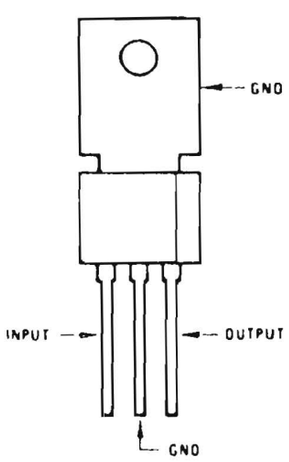




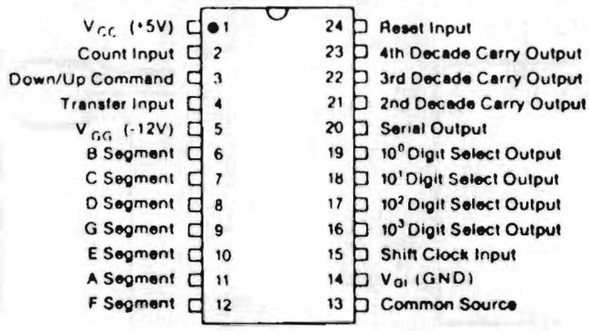
T = 0.7 RC

VCC 16
GND 8

NATIONAL SEMI 78M05	AMPEX 587-433	3-TERMINAL POSITIVE REGULATORS

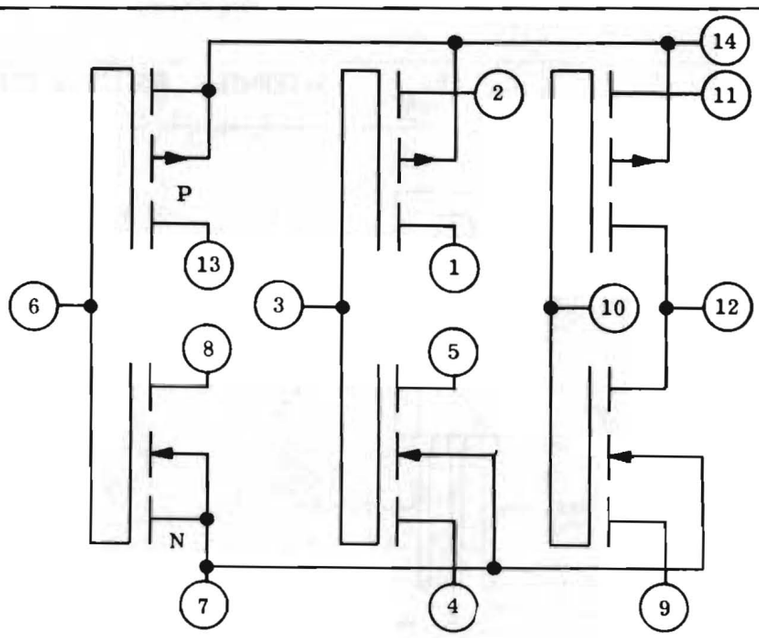


GENERAL INSTRUMENTS AY-5-4007D	AMPEX 587-434	FOUR DIGIT COUNTER/DISPLAY DRIVER



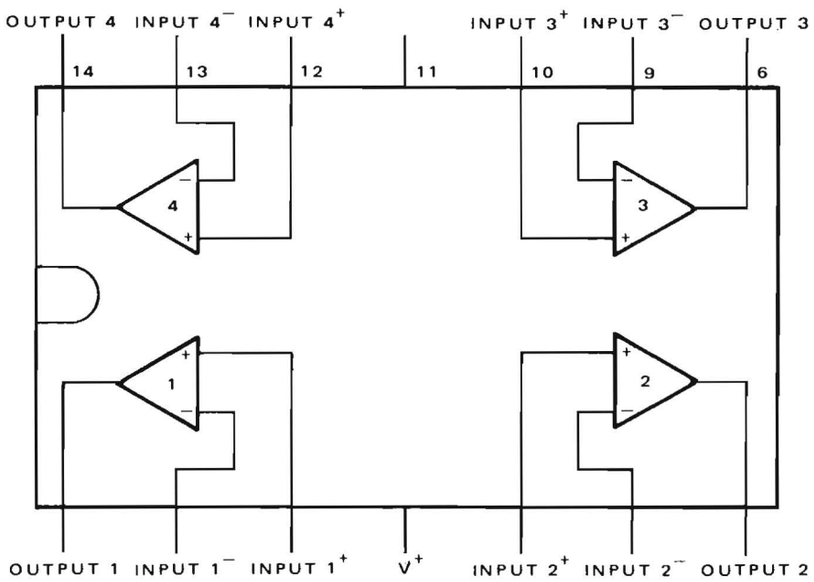
NOTE: True/Complement control is internally connected to logic "0" level.

RCA CD4007AE	AMPEX 587-447	D-MOS DUAL COMPLEMENTARY PAIR INVERTERS



VDD - 14
VSS - 7

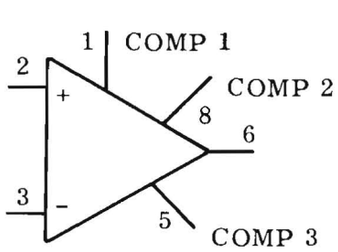
NATIONAL SEMICONDUCTOR LM 324	AMPEX 587-458	QUAD OPERATIONAL AMPLIFIER



TOP VIEW

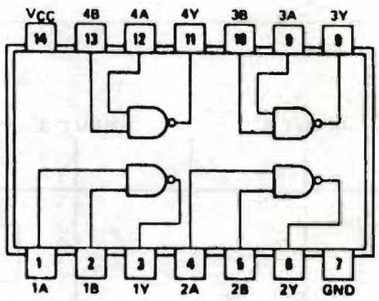
PIN 4 = V_{CC}
PIN 11 = GND

NATIONAL SEMI	AMPEX	
LM318H	587-478	OP AMP
LM318N	587-656	



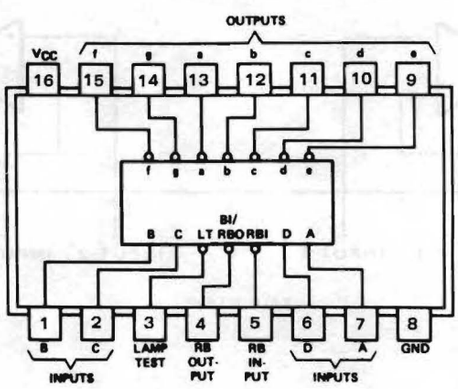
V^+7 V^-4(gnd)

TEXAS INST SN7426N	AMPEX 587-543	QUADRUPLE 2-INPUT HIGH-VOLTAGE INTERFACE POSITIVE-NAND GATES



positive logic:
$Y = \overline{AB}$

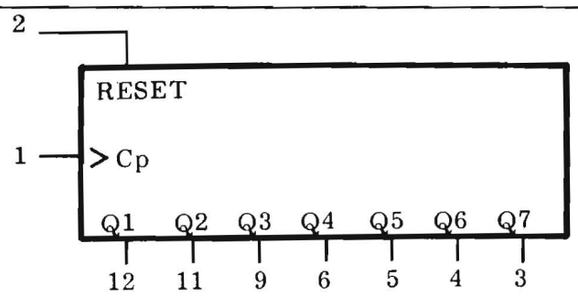
TEXAS INST SN7447AN	AMPEX 587-544	BCD-TO-SEVEN-SEGMENT DECODERS/ DRIVERS



DECIMAL OR FUNCTION	INPUTS						BI/RBO†	OUTPUTS							NOTE
	LT	RBI	D	C	B	A		a	b	c	d	e	f	g	
0	H	H	L	L	L	L	H	ON	ON	ON	ON	ON	ON	OFF	
1	H	X	L	L	L	H	H	OFF	ON	ON	OFF	OFF	OFF	OFF	
2	H	X	L	L	H	L	H	ON	ON	OFF	ON	ON	OFF	ON	
3	H	X	L	L	H	H	H	ON	ON	ON	ON	OFF	OFF	ON	
4	H	X	L	H	L	L	H	OFF	ON	ON	OFF	OFF	ON	ON	
5	H	X	L	H	L	H	H	ON	OFF	ON	ON	OFF	ON	ON	
6	H	X	L	H	H	L	H	OFF	OFF	ON	ON	ON	ON	ON	
7	H	X	L	H	H	H	H	ON	ON	ON	OFF	OFF	OFF	OFF	
8	H	X	H	L	L	L	H	ON	ON	ON	ON	ON	ON	ON	1
9	H	X	H	L	L	H	H	ON	ON	ON	OFF	OFF	ON	ON	
10	H	X	H	L	H	L	H	OFF	OFF	OFF	ON	ON	OFF	ON	
11	H	X	H	L	H	H	H	OFF	OFF	ON	ON	OFF	OFF	ON	
12	H	X	H	H	L	L	H	OFF	ON	OFF	OFF	OFF	ON	ON	
13	H	X	H	H	L	H	H	ON	OFF	OFF	ON	OFF	ON	ON	
14	H	X	H	H	H	L	H	OFF	OFF	OFF	ON	ON	ON	ON	
15	H	X	H	H	H	H	H	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
BI	X	X	X	X	X	X	L	OFF	OFF	OFF	OFF	OFF	OFF	OFF	2
RBI	H	L	L	L	L	L	L	OFF	OFF	OFF	OFF	OFF	OFF	OFF	3
LT	L	X	X	X	X	X	H	ON	ON	ON	ON	ON	ON	ON	4

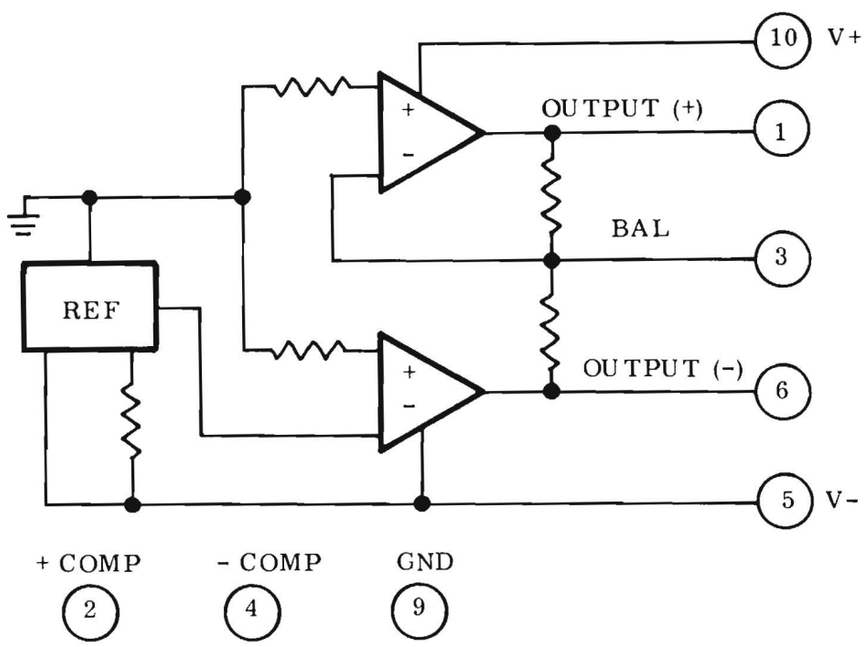
H = high level, L = low level, X = irrelevant

RCA	AMPEX	
CD 4024AE	587-677	7 STAGE BINARY COUNTER C-MOS

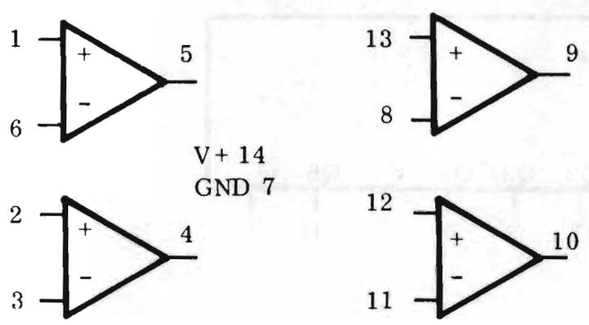


VDD 14
VSS 7

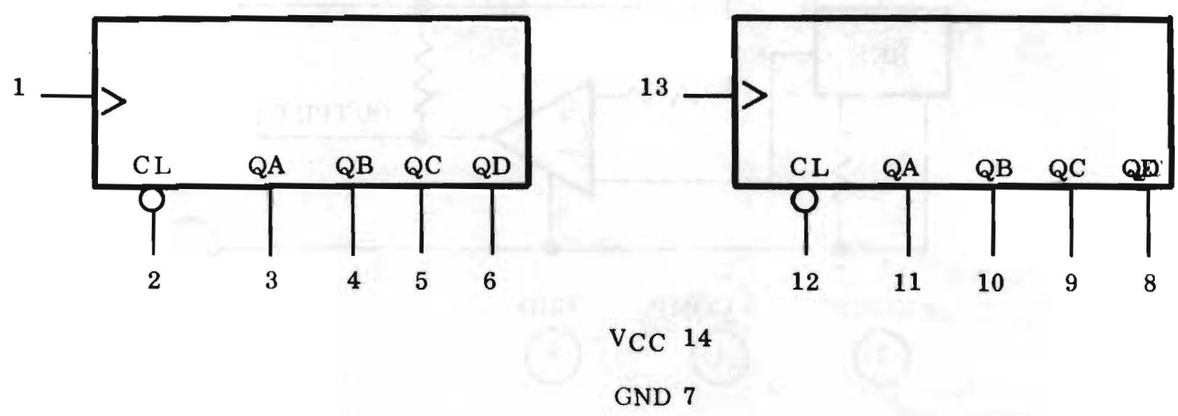
RAYTHEON	AMPEX	
4194TK	587-701	VOLTAGE REGULATOR DUAL TRACKING



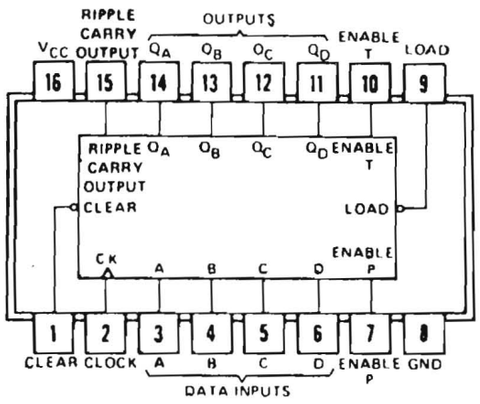
NATIONAL SEMI LM 3900N	AMPEX 587-714	QUAD DIFFERENTIAL AMPLIFIER



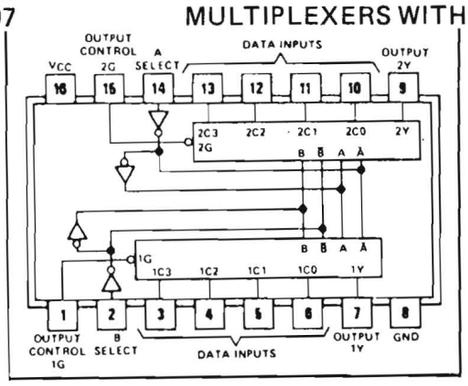
TEXAS INST SN 74393 N	AMPEX 587-761	DUAL 4 BIT COUNTER, BINARY



TEXAS INSTR	AMPEX	
SN74LS161	587-772	SYNCHRONOUS 4-BIT COUNTERS



TEXAS INSTR	AMPEX	
SN74LS253	587-797	DUAL 4-LINE-TO-1-LINE DATA SELECTORS/ MULTIPLEXERS WITH 3 STATE OUTPUTS



FUNCTION TABLE

SELECT INPUTS		DATA INPUTS				OUTPUT CONTROL	OUTPUT
B	A	C0	C1	C2	C3	G	Y
X	X	X	X	X	X	H	Z
L	L	L	X	X	X	L	L
L	L	H	X	X	X	L	H
L	H	X	L	X	X	L	L
L	H	X	H	X	X	L	H
H	L	X	X	L	X	L	L
H	L	X	X	H	X	L	H
H	H	X	X	X	L	L	L
H	H	X	X	X	H	L	H

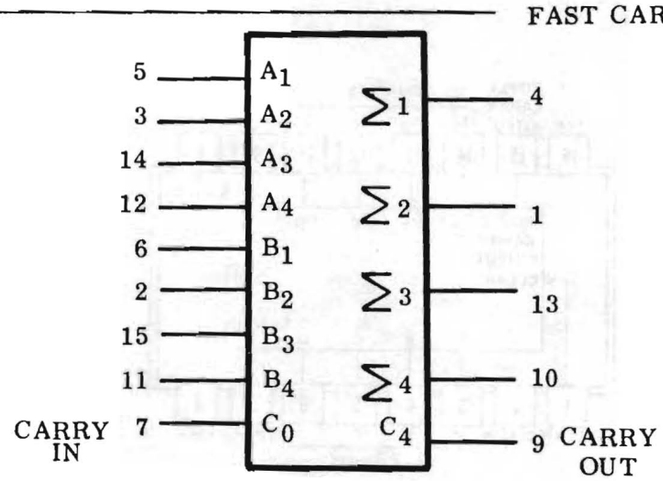
Address inputs A and B are common to both sections.

H = high level, L = low level, X = irrelevant, Z = high impedance (off)

TEXAS INST
SN 74LS283N
SN 74283

AMPEX
587-814
587-495

4 BIT BINARY ADDER WITH FAST CARRY

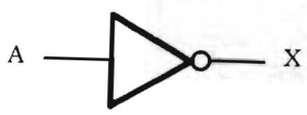


PIN 8 = GND
PIN 16 = +5V

RCA
CD 4069

AMPEX
587-858

HEX INVERTER



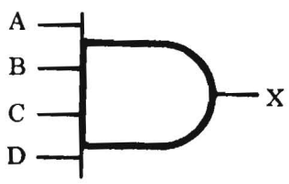
A	X
1	2
3	4
5	6
9	8
11	10
13	12

VDD 14
VSS 7

RCA
CD 4082

AMPEX
587-907

4 INPUT AND



X = ABCD

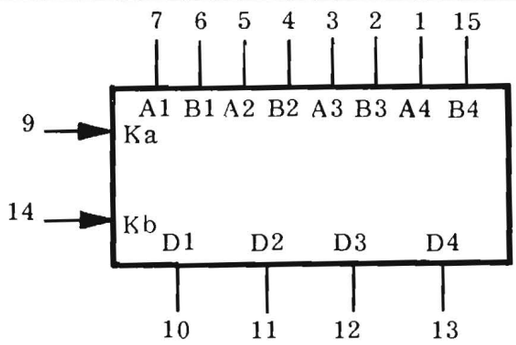
A	B	C	D	X
2	3	4	5	1
9	10	11	12	13

VDD 14
VSS 7

RCA
4019PC
CD 4019AE

AMPEX
587-990
587-960

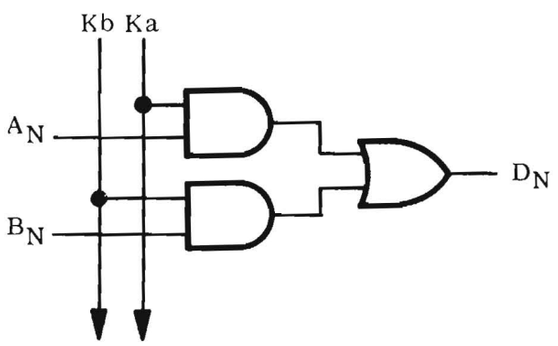
QUAD AND/OR SELECT



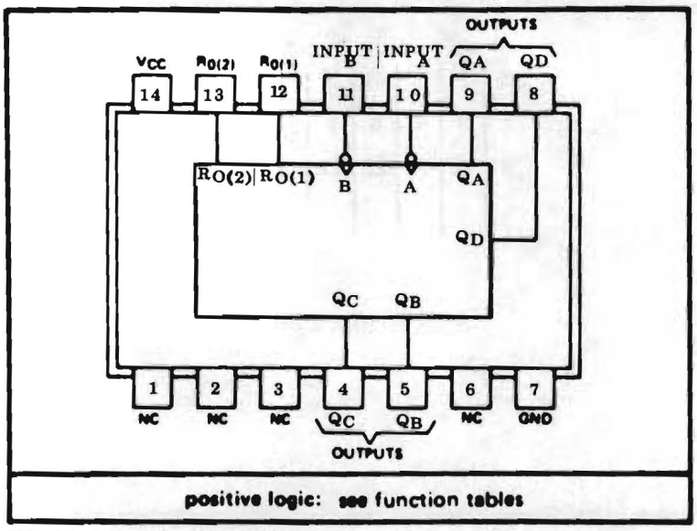
VDD 16
VSS 8

LOGIC LIST

KA	KB	OUTPUT FOLLOWS
H	L	A
L	H	B
L	L	LOW



TEXAS INSTRUMENTS 74LS293	AMPEX 589-238	4-BIT BINARY COUNTERS



NC—No internal connection

NOTES: A. Output Q_A is connected to input B for BCD count.
B. Output Q_D is connected to input A for bi-quinary count.
C. Output Q_A is connected to input B.
D. H = high level, L = low level, X = irrelevant

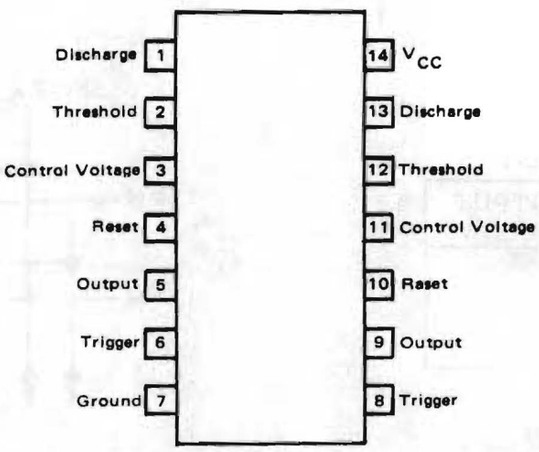
RESET/COUNT FUNCTION TABLE

RESET INPUTS		OUTPUT			
$R_{0(1)}$	$R_{0(2)}$	Q_D	Q_C	Q_B	Q_A
H	H	L	L	L	L
L	X	COUNT			
X	L	COUNT			

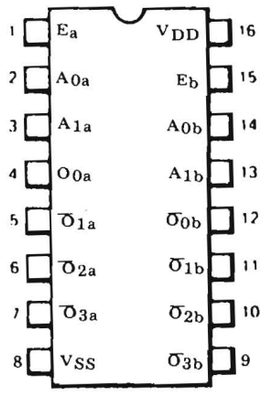
COUNT SEQUENCE
(See Note C)

COUNT	OUTPUT			
	Q_D	Q_C	Q_B	Q_A
0	L	L	L	L
1	L	L	L	H
2	L	L	H	L
3	L	L	H	H
4	L	H	L	L
5	L	H	L	H
6	L	H	H	L
7	L	H	H	H
8	H	L	L	L
9	H	L	L	H
10	H	L	H	L
11	H	L	H	H
12	H	H	L	L
13	H	H	L	H
14	H	H	H	L
15	H	H	H	H

SIGNETICS NE556A	AMPEX 589-254	DUAL TIMER

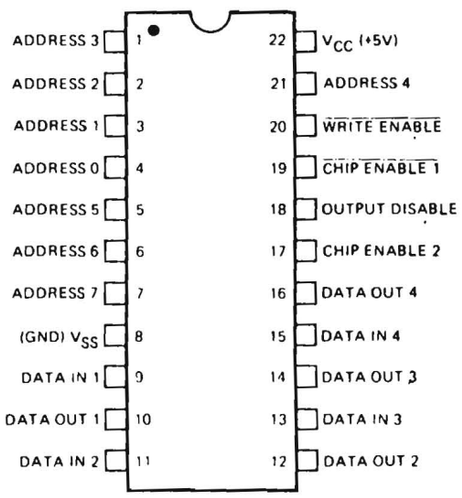


FAIRCHILD SEMI	AMPEX	DUAL 1-OF-4 DECODERS/
F4556	589-336	DEMULTIPLEXERS

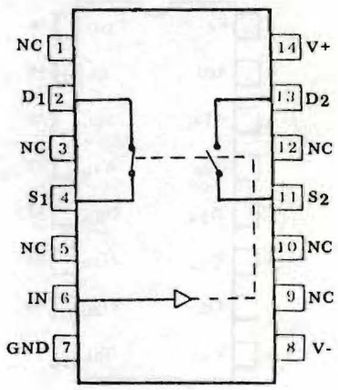


ADVANCED MICRO	AMPEX	256 X 4 STATIC
2101-A2	589-347	READ/WRITE RAM

CONNECTION DIAGRAM
Top View



Note: Flat Pack version available in 24-pin package.
See page 4 for pin configuration.



LOGIC	SW1	SW2
0	OFF	ON
1	ON	OFF